

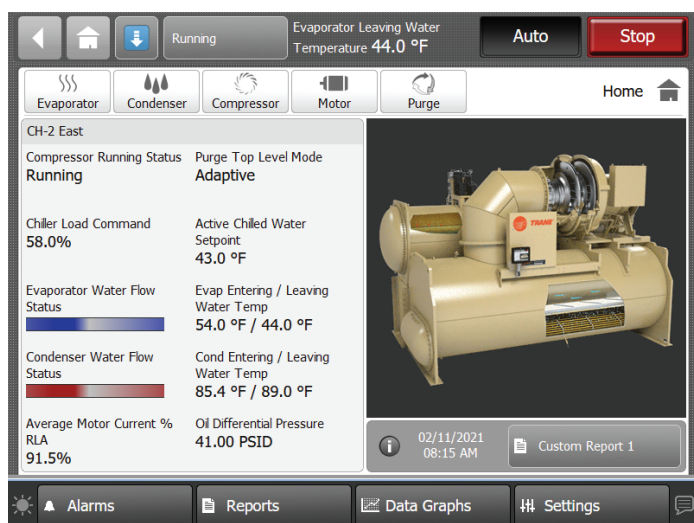


User Guide

AdaptiView™ Display

with Symbio™ Controls

CenTraVac™ Water-Cooled Chillers



X39641420003

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

April 2026

CTV-SVU004C-EN

TRANE
TECHNOLOGIES™



Introduction

Read this manual thoroughly before operating or servicing this unit.

Warnings, Cautions, and Notices

Safety advisories appear throughout this manual as required. Your personal safety and the proper operation of this machine depend upon the strict observance of these precautions.

The three types of advisories are defined as follows:



Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury. It could also be used to alert against unsafe practices.



Indicates a situation that could result in equipment or property-damage only accidents.

Important Environmental Concerns

Scientific research has shown that certain man-made chemicals can affect the earth's naturally occurring stratospheric ozone layer when released to the atmosphere. In particular, several of the identified chemicals that may affect the ozone layer are refrigerants that contain Chlorine, Fluorine and Carbon (CFCs) and those containing Hydrogen, Chlorine, Fluorine and Carbon (HCFCs). Not all refrigerants containing these compounds have the same potential impact to the environment. Trane advocates the responsible handling of all refrigerants.

Important Responsible Refrigerant Practices

Trane believes that responsible refrigerant practices are important to the environment, our customers, and the air conditioning industry. All technicians who handle refrigerants must be certified according to local rules. For the USA, the Federal Clean Air Act (Section 608) sets forth the requirements for handling, reclaiming, recovering and recycling of certain refrigerants and the equipment that is used in these service procedures. In addition, some states or municipalities may have additional requirements that must also be adhered to for responsible management of refrigerants. Know the applicable laws and follow them.

WARNING

Proper Field Wiring and Grounding Required!

Failure to follow code could result in death or serious injury.

All field wiring MUST be performed by qualified personnel. Improperly installed and grounded field wiring poses FIRE and ELECTROCUTION hazards. To avoid these hazards, you MUST follow requirements for field wiring installation and grounding as described in NEC and your local/state/national electrical codes.

⚠ WARNING

Personal Protective Equipment (PPE) Required!

Failure to wear proper PPE for the job being undertaken could result in death or serious injury.

Technicians, in order to protect themselves from potential electrical, mechanical, and chemical hazards, **MUST** follow precautions in this manual and on the tags, stickers, and labels, as well as the instructions below:

- Before installing/servicing this unit, technicians **MUST** put on all PPE required for the work being undertaken (Examples; cut resistant gloves/sleeves, butyl gloves, safety glasses, hard hat/bump cap, fall protection, electrical PPE and arc flash clothing). **ALWAYS** refer to appropriate Safety Data Sheets (SDS) and OSHA guidelines for proper PPE.
- When working with or around hazardous chemicals, **ALWAYS** refer to the appropriate SDS and OSHA/GHS (Global Harmonized System of Classification and Labelling of Chemicals) guidelines for information on allowable personal exposure levels, proper respiratory protection and handling instructions.
- If there is a risk of energized electrical contact, arc, or flash, technicians **MUST** put on all PPE in accordance with OSHA, NFPA 70E, or other country-specific requirements for arc flash protection, **PRIOR** to servicing the unit. **NEVER PERFORM ANY SWITCHING, DISCONNECTING, OR VOLTAGE TESTING WITHOUT PROPER ELECTRICAL PPE AND ARC FLASH CLOTHING. ENSURE ELECTRICAL METERS AND EQUIPMENT ARE PROPERLY RATED FOR INTENDED VOLTAGE.**

⚠ WARNING

Follow EHS Policies!

Failure to follow instructions below could result in death or serious injury.

- All Trane personnel must follow the company's Environmental, Health and Safety (EHS) policies when performing work such as hot work, electrical, fall protection, lockout/tagout, refrigerant handling, etc. Where local regulations are more stringent than these policies, those regulations supersede these policies.
- Non-Trane personnel should always follow local regulations.

⚠ WARNING

Cancer and Reproductive Harm!

This product can expose you to chemicals including lead and bisphenol A (BPA), which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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Revision History

- Updated tables in Viewing Operating Modes section in Reports chapter.
- Updated Log Out section in Controller Settings Chapter.
- Updated Subcomponent Screen Data and Reports tables in Appendix Chapter.
- Updated X code in coverpage.



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Product Overview

The Tracer® AdaptiView™ display provides data visibility and the ability to make operational changes to the chiller.

The purpose of this guide is to assist the use of this display, including screen access instructions, and descriptions of available information.

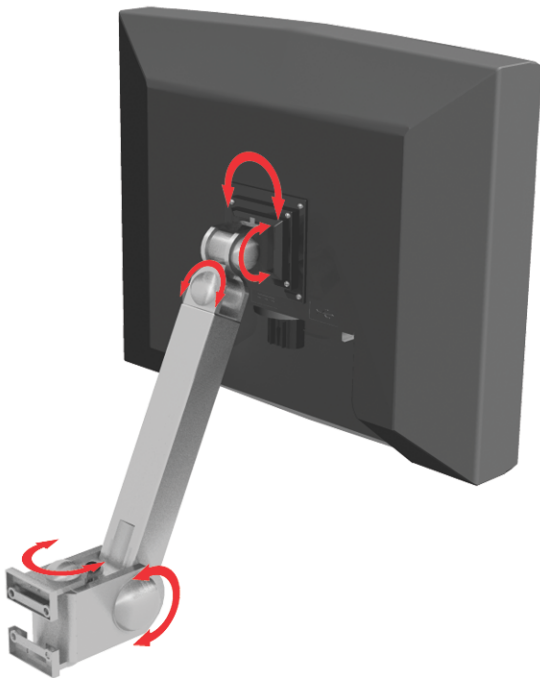
Equipment Description

The basic equipment features of the Tracer® AdaptiView™ display are described here.

Hardware

The Tracer® AdaptiView™ display is mounted on or near the chiller control panel. It can be attached to the chiller by an arm that can extend 11-inches. Five pivot points enable full articulation as described in the following specifications and in the figure:

Figure 1. The Tracer AdaptiView mounting arm



- Two horizontal pivots points 90° right or left (180° total)
- Two vertical pivots points: 90° degrees up or down (180° total)
- Rotation: 135° clockwise and 135° counterclockwise (270° total)

Screen Characteristics

The 12.1-inch color touch-screen display shows data in either inches and pounds (I-P) or standard international (SI) units, and in one of twenty-seven available languages. Animated color graphics indicate the status of the chiller.

DC Power

The Tracer® AdaptiView™ display receives 24 Vdc power through its power cable. The Symbio™ 800 controller must be powered on.

Communication

A separate ethernet cable provides communication between the Tracer® AdaptiView™ display and the Symbio™ 800 controller. Alarms are communicated immediately upon detection.



Touchscreen Guidelines

The touch screen registers the downward pressure of a touch. Increased pressure has no effect.

Use only fingers to operate the touch screen. Do NOT use a pen or pencil, or any sharp or pointed object that might scratch the screen surface.

If pressure is applied at more than one point, the touch screen registers only the first touch. If an area of the screen that is not touch sensitive is contacted, subsequent touches will not register.

Holding the screen can cause unintended navigation from inadvertent thumb or palm pressure.

Related Information

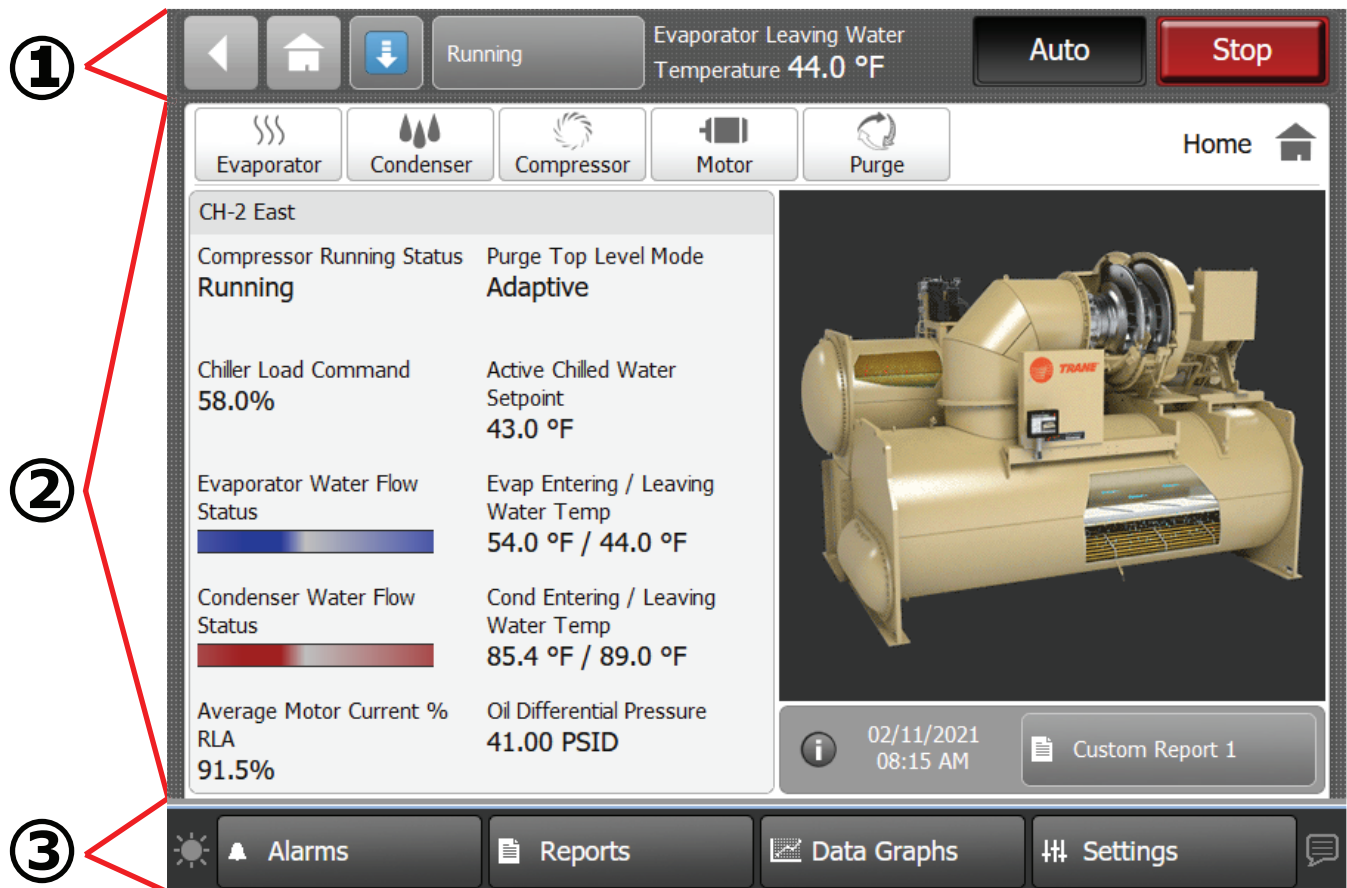
Additional information on chillers with Tracer® Symbio 800™ control can be found in these documents:

- CDHH-SVX003*-EN (*Installation, Operation, and Maintenance: CDHH Water-Cooled CenTraVac Chillers with Symbio Control*)
- CVHH-SVX003*-EN (*Installation, Operation, and Maintenance: CVHH Water-Cooled CenTraVac Chillers with Symbio Control*)
- CDHF-SVX0004*-EN (*Installation, Operation, and Maintenance: CDHF and CDHG Water-Cooled CenTraVac Chillers with Symbio Control*)
- CVHE-SVX005*-EN (*Installation, Operation, and Maintenance: CVHE, CVHF, and CVHG Water-Cooled CenTraVac Chillers with Symbio Control*)
- PRGG-SVX002*-EN (*Installation, Operation, and Maintenance: Purge System with Symbio Control for Water-cooled CenTraVac Chillers with R-514A Refrigerant*)
- CTV-SVD005*-EN (*Diagnostics Manual: Diagnostic Descriptions, Troubleshooting Tables, and Control Component Overview for Water-cooled CenTraVac Chillers with Symbio Control*)
- CTV-SVP004*-EN (*Programming Guide: Tracer TU Service Tool for Water-cooled CenTraVac Chillers with Symbio Control*)
- BAS-SVU046*-EN (*User Guide: Tracer® TU Service Tool*)

Screen Overview

The touch-sensitive areas of the AdaptiView™ display screen are described in detail in this section.

Figure 2. Home screen



1. Chiller Status Area
2. Main Display Area/Home Screen
3. Main Menu Area

Chiller Status Area

The chiller status area remains visible from every screen on the AdaptiView™ display. Basic information about chiller status and control appears on the face of the buttons and touch targets. When touched, the buttons and touch targets open other screens that provide more information and control access. The following table provides the details.

Table 1. Chiller status area

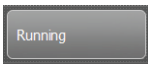
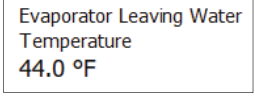
Button/Touch target	Description
Chiller status button 	The top-level operating mode of the chiller appears on the chiller status button. Touch this button to view the Chiller Operating Mode screen.
Manual override button 	If a manual override exists, a manual override button appears. If a manual override exists, you can touch this button as an alternate way to view the Manual Control Settings screen.

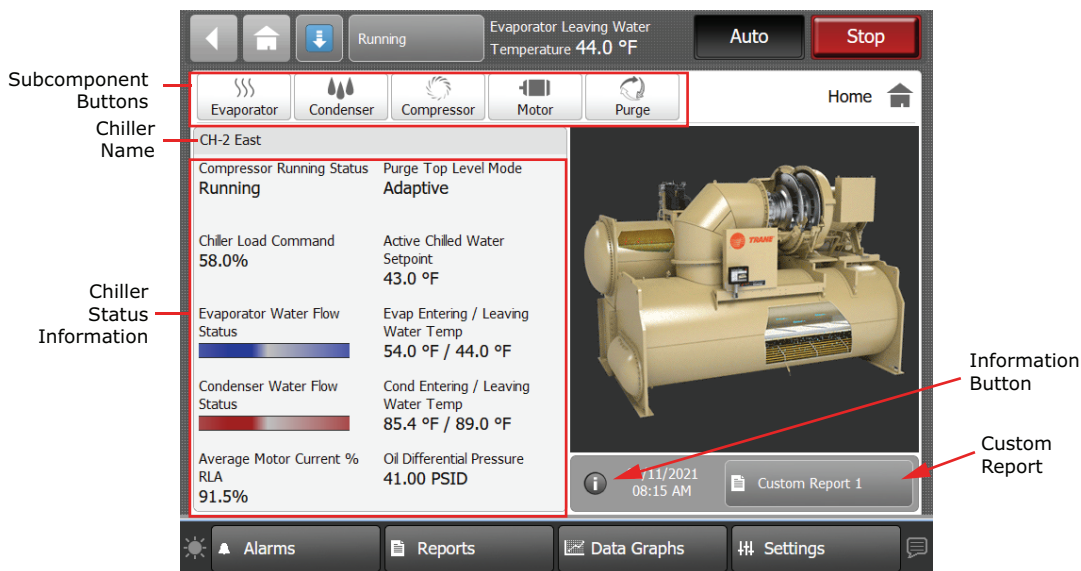
Table 1. Chiller status area (continued)

Button/Touch target	Description
Water temperature touch target 	The water temperature touch target shows one of the following, depending on whether the chiller is in cooling, heating, or ice building mode (also referred to as the Active Control Type): - If the Active Control Type is Cooling, the Evaporator Leaving Water Temperature appears and the touch target links to the evaporator subcomponent screen. - If the Active Control Type is Heating, the Heat Recovery Leaving Water Temperature or Condenser Leaving Water Temperature appears and the touch target links to the condenser subcomponent screen. - If the Ice Building mode is Active, the Evaporator Entering Water Temperature appears and the touch target links to the evaporator subcomponent screen.
Auto/Stop buttons 	Auto and Stop are toggle buttons: One appears raised when the other is appears depressed. - Touch Auto to activate the chiller start-up process. - Touch Stop to active the chiller shutdown process.

Main Display Area/Home Screen

The main display area on the home screen provides chiller status information, and an animated graphic of the chiller.

Figure 3. Main display area of the Home screen



Home screen: Chiller status information

- The chiller name can be found at the top left corner of the main display area as shown in the figure below.
- The subcomponent information area provides the most frequently needed chiller status information for each chiller subcomponent. Touch the subcomponent buttons above the main display area to display more chiller status information related to each subcomponent.
- Touch the Information Button in the lower right section to view the About screen.
- The date and time are also shown in the lower right section of the main display area.
- Touch the Custom Report 1 button in the lower right section to view the custom report screen.

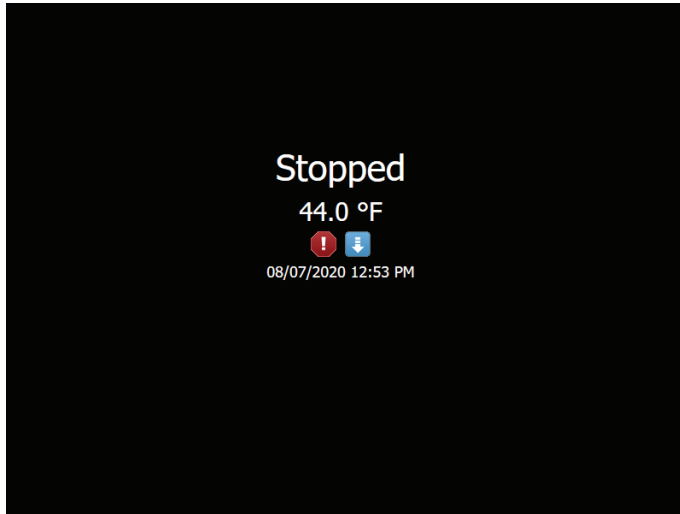
Home screen: Animated Graphic

A graphic of a chiller appears on the home page. The graphic uses animation to indicate the operational status of the chiller. If the chiller is running, animation appears within the cutaway areas of the compressor and the evaporator. If the chiller is not running, the subcomponents are enclosed and are not animated.

Main Display Area/Screen Saver

When the backlight timeout expires, the screen dims and a screen saver appears in the main display area as shown in the following figure. Alternately, if you touch the screen saver, the home screen appears.

Figure 4. Screen saver



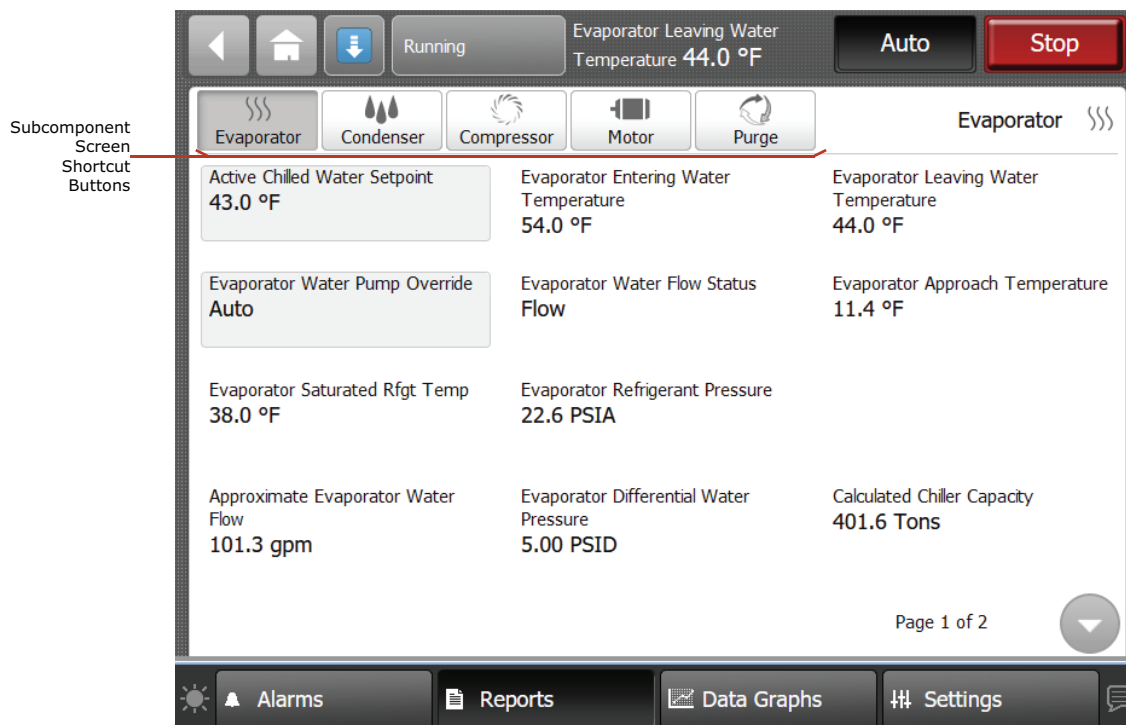
Subcomponent Screens

Each chiller subcomponent has a touch target, accessible from the home screen.

Subcomponent buttons will open a screen containing data that is related to that subcomponent. (See the example in the following figure). The shortcut buttons at the top of each of the subcomponent screens can be used to view the other subcomponents screens.

See the Appendix for lists of settings and status points accessible from each of the subcomponent screens. The chiller configuration determines which of the settings and status points appear.

Figure 5. Subcomponent screen example



Subcomponent Screen Settings

Some settings appear on the subcomponent screens as buttons. These buttons take you to another screen, where settings can be changed. (See, for example, the buttons on the evaporator subcomponent screen in the preceding figure, which show the Active Chilled Water Setpoint and the Evaporator Water Pump Override.)

Main Menu Area

The main menu area always remains visible at the bottom of the display. When touched, each of the buttons displays the main menu screen for the topic listed on the button. The following table provides a description of each button.

Table 2. Main menu area

Button	Description
 Alarms	Touch the Alarms button to view the Alarms screen. If there is an active alarm, the button flashes a color. The flashing color is determined by the highest severity of active alarms: • If an Immediate Shutdown alarm exists, the flashing color is red. • If a Normal Shutdown alarm exists, the flashing color is yellow. • If a Warning alarm exists, the flashing color is blue.
 Reports	Touch the Reports button to view the Reports screen.
 Data Graphs	Touch the Data Graphs button to view the Data Graphs screen.
 Settings	Touch the Settings button to view the Settings screen.
	Touch the Language icon to view the Language screen. (This button is a shortcut. You can also view the Language screen by using the Settings button.)
  	Touching the brightness button will cycle the display brightness from 30% to 60% to 90% brightness.



Stopping/Starting Chiller Operation

Start or stop the chiller from the Tracer® AdaptiView™ display by using the Auto and Stop buttons. The buttons are located in upper right.

Stopping the Chiller

The chiller can be stopped in two ways:

- Normally — Stops the various components sequentially in order to protect them from damage.
- Immediately — Shuts down all the components at once, and should be used only in an emergency.

To stop the chiller in either of these ways:

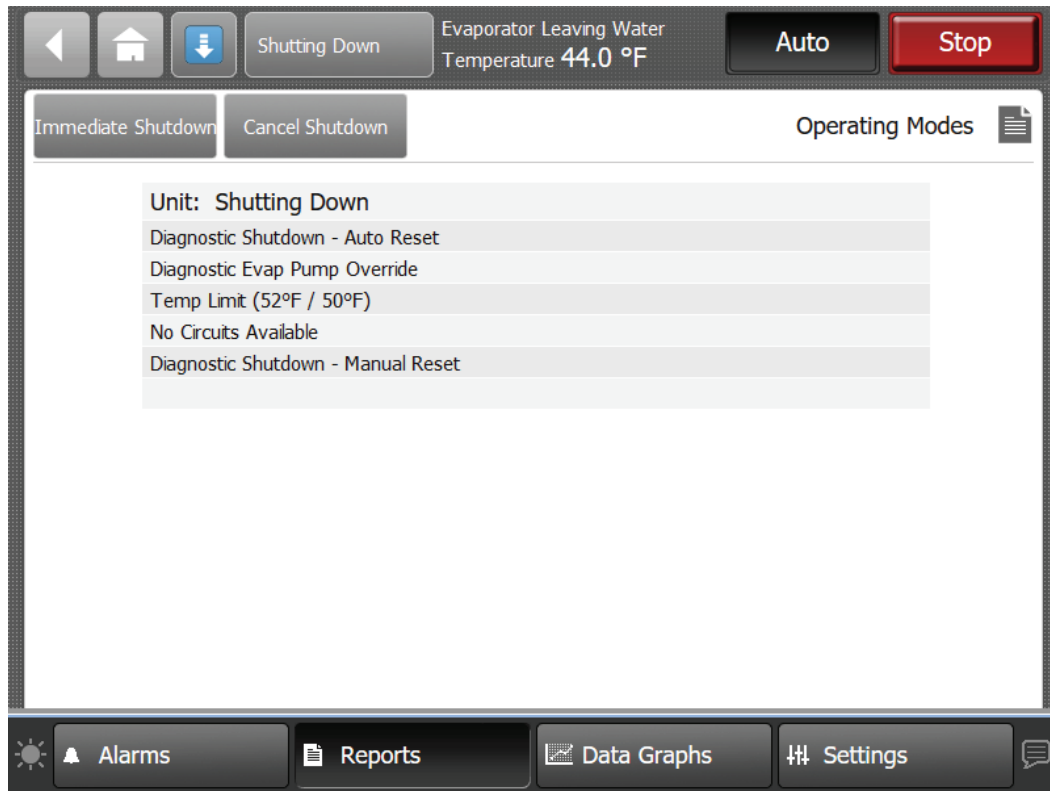
1. Touch the Stop button to initiate the chiller shutdown process. A confirmation screen appears as shown in the following figure.

Figure 6. Stop unit confirmation screen



2. Touch the **Yes** button. The Shutting Down Chiller screen appears as shown in the following figure.
 - To stop the chiller normally, no further action is required. You can observe the submodes change and the timers count down.
 - To stop the chiller immediately, touch the **Immediate Shutdown** button.
 - To cancel shutdown, touch the **Cancel Shutdown** button.

Figure 7. Shutting Down Chiller screen



Starting the Chiller

Touch the Auto button to initiate the chiller start sequence. You can observe the mode change to Auto. The chiller will wait until cooling is needed before starting the compressor.

When the chiller is running normally, it automatically starts and stops as needed to reach its setpoints.

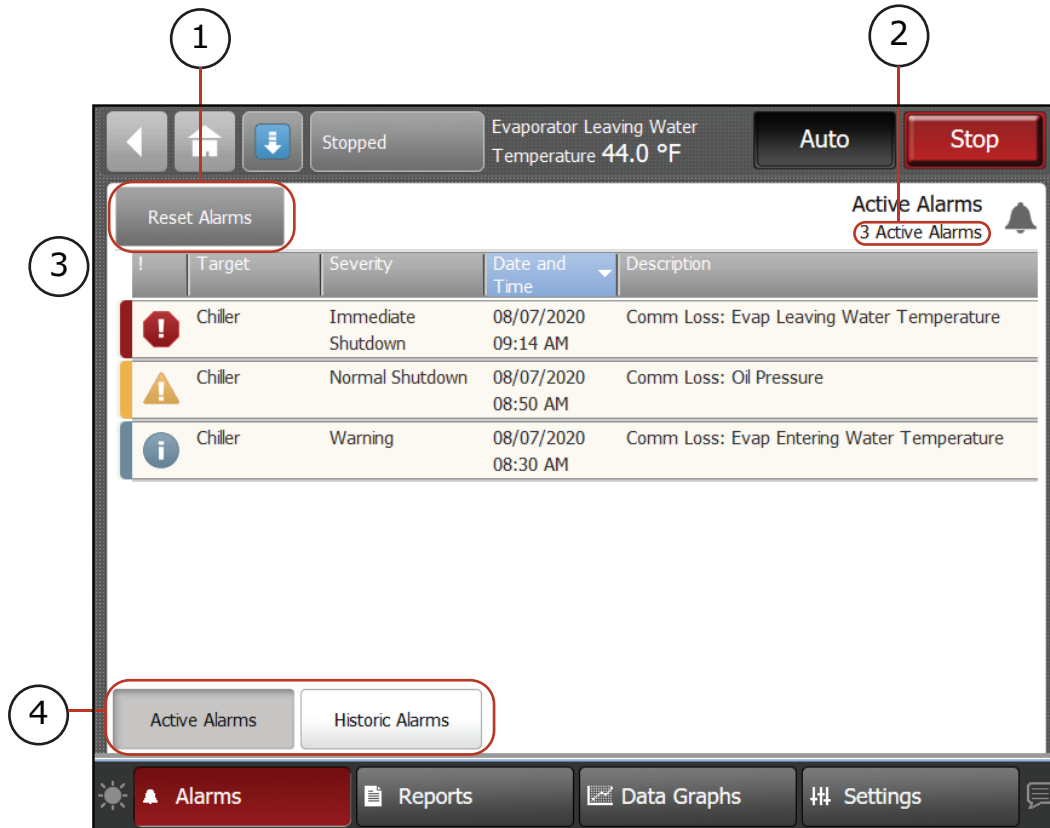
Alarms

Tracer® AdaptiView™ displays alarms immediately upon detection, and provides the ability to reset them.

Alarms Screen

Touch the **Alarms** button in the main menu area at the bottom of the screen to view the Alarms screen. A table of active alarms appears that is organized chronologically with the most recent at the top of the list, as shown in the following figure. This example shows the default view, which appears each time you return to the screen.

Figure 8. Alarms screen (default view)



1. Reset Alarms button
2. Number of alarms
3. Sortable columns—The example is sorted by date/time.
4. Alarms categories—The example shows active alarms.

Note: If number of alarms exceeds one page, page number appears in the lower right corner of the screen. If a screen contains more than one page, up/down arrows also appear for viewing the other pages.

Alarm Icons

Alarm icons, which appear in the left-most column of the alarms screen and on the alarms indicator button if there is an existing alarm, are distinguished by their shape and color. Their meaning is explained in the following table.

Alarms

Table 3. Alarm icons

Active alarm icons	Historic alarm icons	Level of severity
 Red octagon	 Gray octagon	Immediate shutdown
 Yellow triangle	 Gray triangle	Normal shutdown
 Blue circle	 Gray circle	Warning

Active and Historic Alarm Categories

Two categories of alarms are provided:

- **Active alarms:** Alarms that require attention. All alarms that are currently active appear when this category is viewed.
- **Historic alarms:** After an alarm condition has been resolved, the alarm is reclassified as historic. The 20 most recent historic alarms are displayed when this category is viewed.

The Alarms screen defaults to active alarms, as shown in the figure in the Alarms Screen section. Note that the **Active Alarms** button appears shaded in Location 4, when active alarms are viewed. To view a different category, touch **Historic Alarms**. The selected button becomes shaded and the list appears.

Sorting Alarms

To sort alarms by a category other than date and time, touch one of the other column headings in the table. The column heading responds by changing to blue, and the alarms table re-sorts according to the blue column heading. If you touch the blue column heading again, the column changes the order from ascending to descending.

You can sort the alarms table by:

- Date/Time (the default sort): Most recent alarms are at the top.
- Severity: Most severe, followed by the most recent.
- Description: Alarms are sorted alpha numerically by name, followed by the most recent.

Resetting Alarms

Some alarms require reset to move from the active to the historic state, even if the issue causing the alarm has been resolved. These manual reset alarms are sometimes referred to as latching alarms. Non-latching alarms change from the active to the historic state automatically, after the problem has been resolved.

The Alarms screen does not directly state whether the alarms are latching or non-latching. However, their behavior indicates their type:

- Reset latching alarms by touching the **Reset Alarms** button at the top of the Alarms screen. Latching alarms respond by disappearing from the active alarms list and becoming a part of the historic alarms list. However, if the condition that caused the alarm persists, the alarm will re-appear in the active alarms list.
- Non-latching alarms do not require reset. Non-latching alarms automatically disappear from the active alarms list and re-appear in the historic alarms list when the conditions that caused them are resolved.

Additional Alarm Indicator

In addition to the Alarms screen, there is a button that indicates alarm conditions. This button is viewable from any screen on the display, and is used to access the Alarms screen.

The **Alarms** button in the main menu area of the screen flashes a color that represents the alarm level of the most severe active alarm. The three color possibilities correspond to those of the active alarm icons.



Reports

The Tracer® AdaptiView™ display can be used to view a variety of reports and to create and edit a custom report. All reports contain live data that refreshes every 2 to 5 seconds.

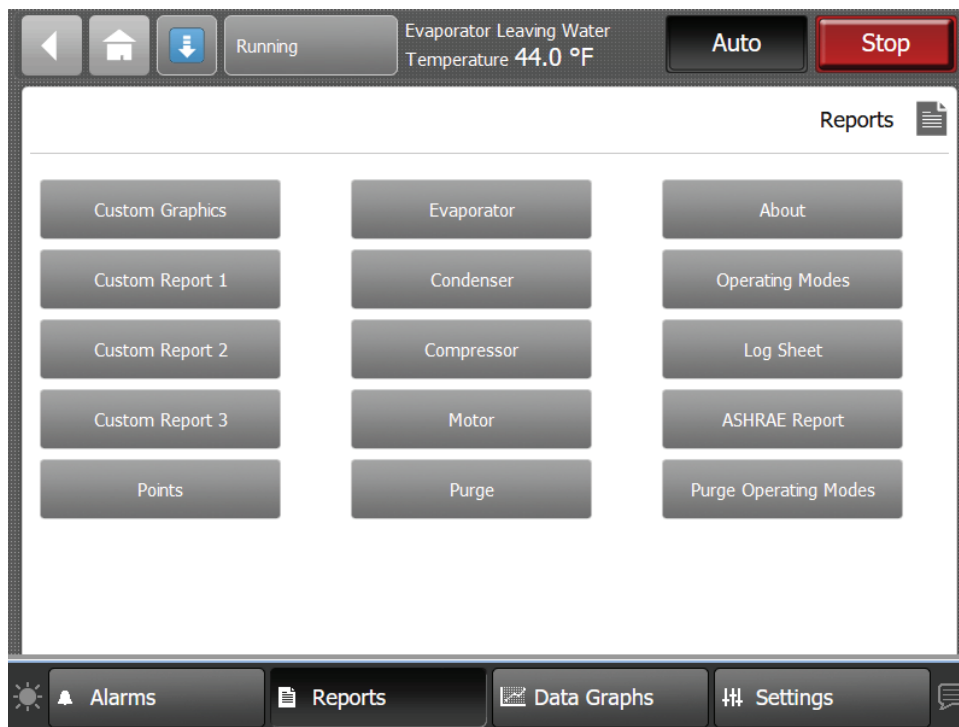
Reports Screen

Touch the **Reports** button in the main menu area to view the Reports screen. The Reports screen contains the following buttons:

- Custom Graphics
- Custom Reports (1 through 3)
- Points
- Evaporator
- Condenser
- Compressor
- Motor
- Purge
- About
- Operating Modes
- Log Sheet
- ASHRAE Report
- Purge Operating Modes

Each button links to the report named on the button.

Figure 9. Reports screen



Custom Graphics

The AdaptiView™ display supports a maximum of 12 custom graphics. Custom graphics are created and loaded using Tracer® Graphics Editor (TGE). See the TGE online help for more information.

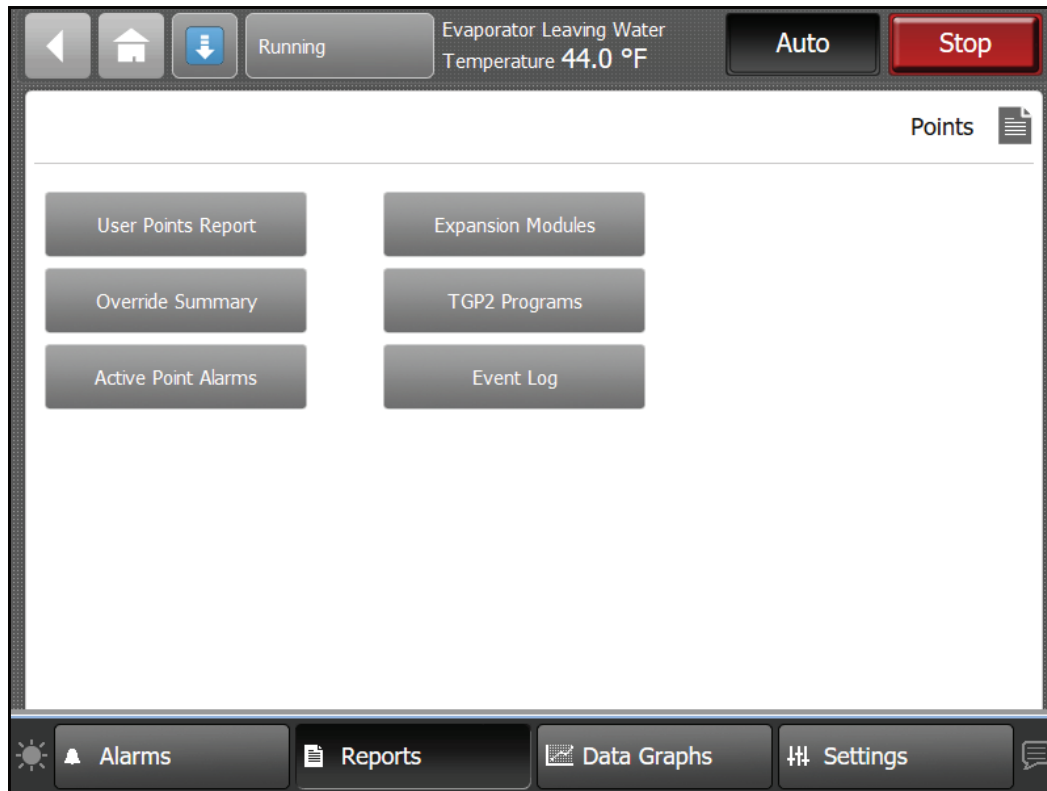
Graphics in the AdaptiView display provide the ability to:

- Display the value of any point on the controller
- Display animation items such as fans and dampers
- Perform overrides
- Link to the Alarms page
- Link to the User Points Report and Custom Reports
- Link to another Custom Graphic

Viewing Points

Touch the Points button to view the Points report screen, which contains access to screens for viewing and manipulating a subset of the BACnet® Point interface.

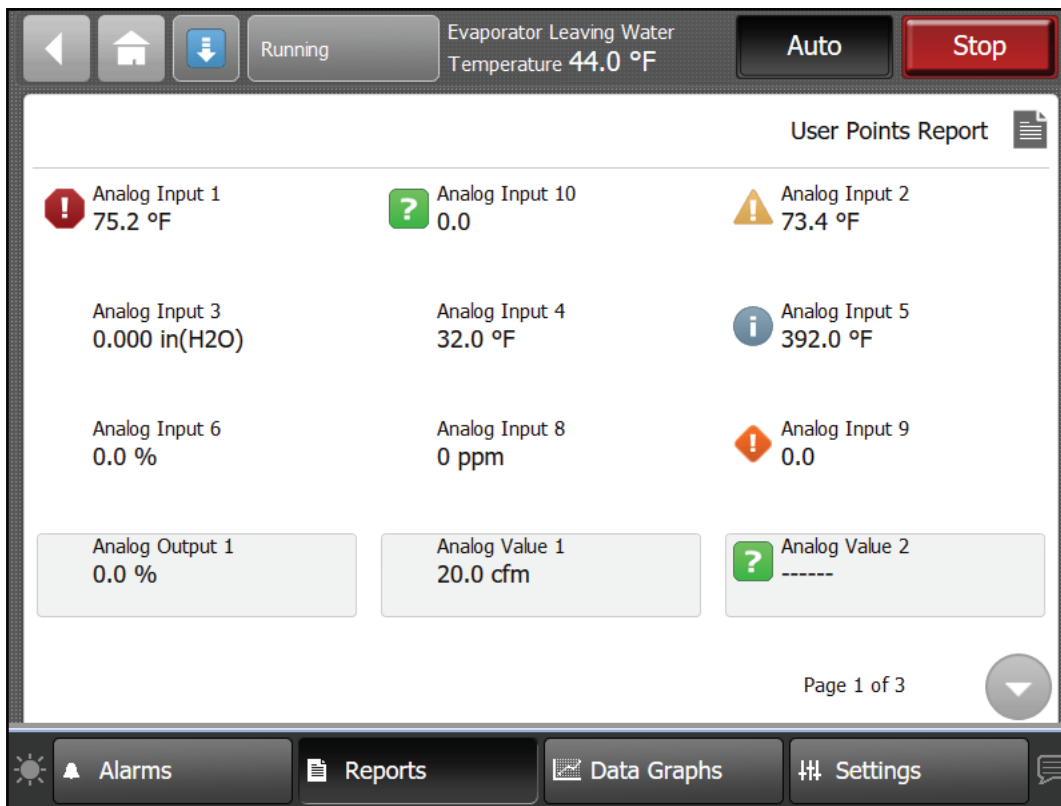
Figure 10. Points Report screen



User Points Report

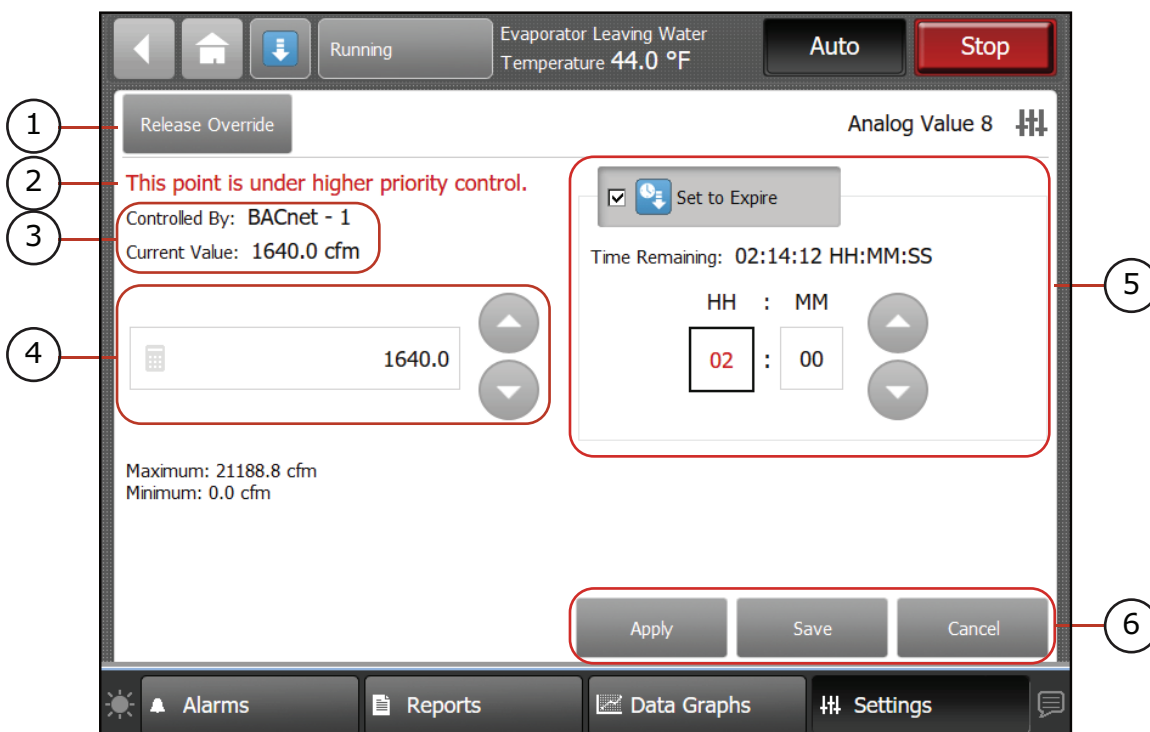
Touch the **User Points Report** button to view the User Points Report screen, which contains user created points for the unit controller. Use the up and down arrows located at the right most bottom of the screen to page up or down.

Figure 11. User Points Report screen



Override Status Area

Figure 12. Override status area report



1. **Releasing an Override** — Touch the **Release Override** button to release the current override. This action returns you to the Override Summary screen.
2. **Releasing an Override Note** — If a point is under a higher priority control, you can still proceed with releasing the override. However, it will not take effect until the higher priority level is removed in Tracer® TU, Tracer® SC+, or Tracer® Ensemble™.
3. **Override Status Area** — This area shows who is controlling the point, followed by the active priority level and the current value of the point. If security is enabled, the name of the user that performed the override will be shown in the Controlled By field. If security is disabled, "Front Panel" is displayed for all overrides performed by the AdaptiView™ display.
4. **Override Value Setting Area** — This area contains buttons that when pressed, change the override status. The button that is active has a shaded appearance in color. The exception is analog points, which require manually entering a value.
5. **Temporary Override Area** — This area allows you to set up a temporary override.
6. **Action Area** — This area allows you to apply, save, or cancel edits made to the point override.

Analog Overrides

The Analog Override screen contains up and down arrows in the Override setting area, as well as a keypad icon that when touched, opens the Analog Keypad.

- Use the up and down arrow buttons to select a value. Touch the **Apply** or **Save** button to retain your changes.
- To manually enter a value, touch the keypad icon.
 - Enter a value by tapping the numerals on the keypad.
 - Touch **Save** to save and return to the Override Screen.

Figure 13. Keypad icon

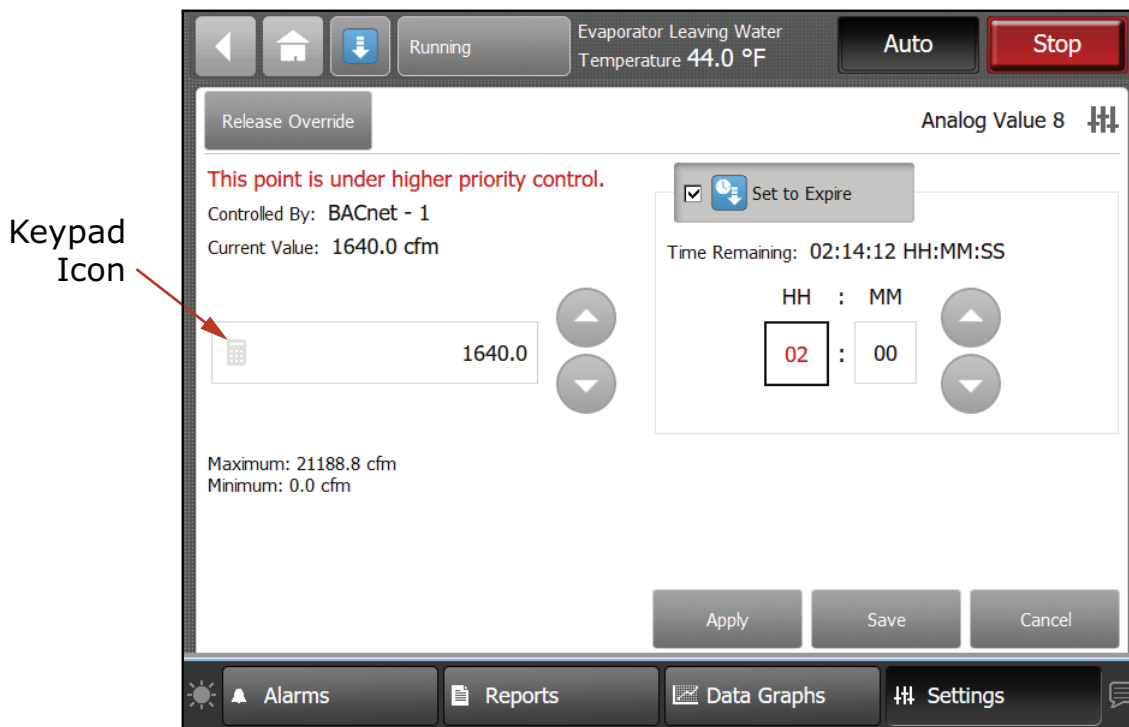
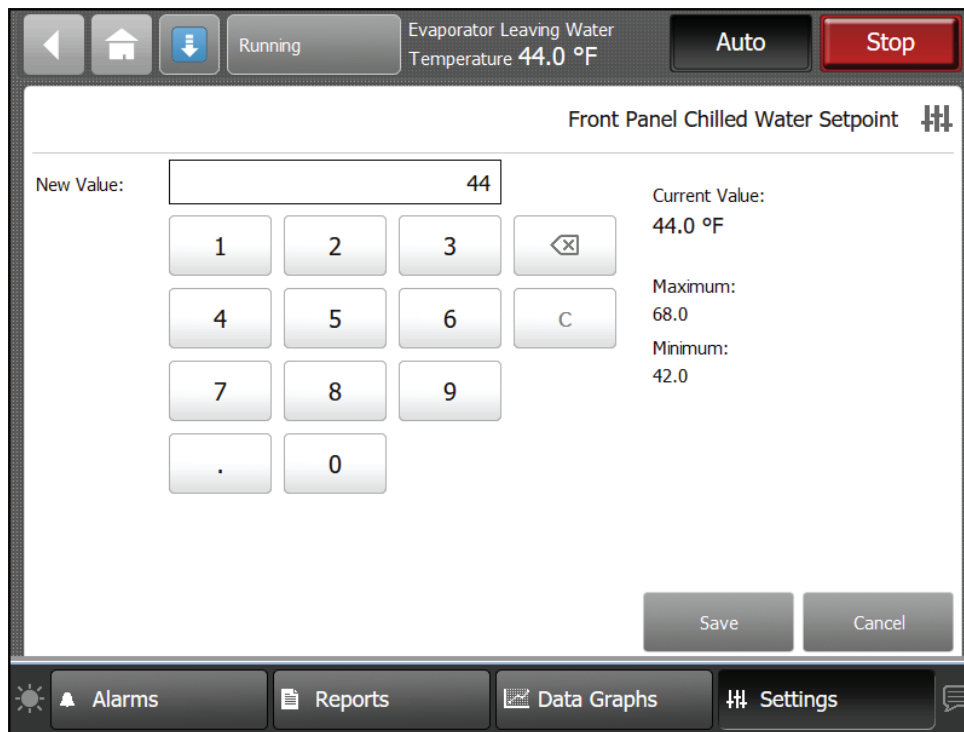


Figure 14. Analog keypad screen



Binary Overrides

The Binary Override screen provides buttons with point state text that is used to set the current value. Multistate overrides with four or fewer states have similar screen functions as the binary override screen. Touch a button in the override setting area to select a state. Touch the **Apply** or **Save** button to retain your changes.

Multistate Overrides

Multistate override screens that contain five or more items will contain up and down arrow buttons in the Override setting area. Use the up and down arrow buttons to select a state. Touch the **Apply** or **Save** button to retain your changes.

Setting Up a Temporary Override

A temporary override can be set by using the buttons in the Temporary Override area. The default duration for temporary overrides is 2 hours 0 minutes. The maximum duration for a temporary override is 99 hours 59 minutes. If more time is needed, consider setting up a permanent override.

1. Touch the **Set to Expire** button. A check mark appears in the check box, the override icon becomes blue, and the Time Remaining area appears.

2. Touch either the hours (**HH**) or minutes (**MM**) button, then use the up and down arrows to set the override.

Note: The **HH** and **MM** buttons, when pressed change by one increment. Hold down on the arrows to accelerate. A second touch of the (**HH**) or (**MM**) buttons will open the Analog keypad screen.

3. Touch the **Apply** or **Save** button to set the temporary override.

Override Summary

The AdaptiView™ has a built in override summary report. Touch the Override Summary button on the Points screen.

The Override Summary screen contains all active overrides. Columns are sortable and automatically default to Time Remaining.

- The override icon indicates that a point override is in effect indefinitely.
- The temporary override icon indicates that an override will expire after a specified duration.

Figure 15. Override icons



Override Icon

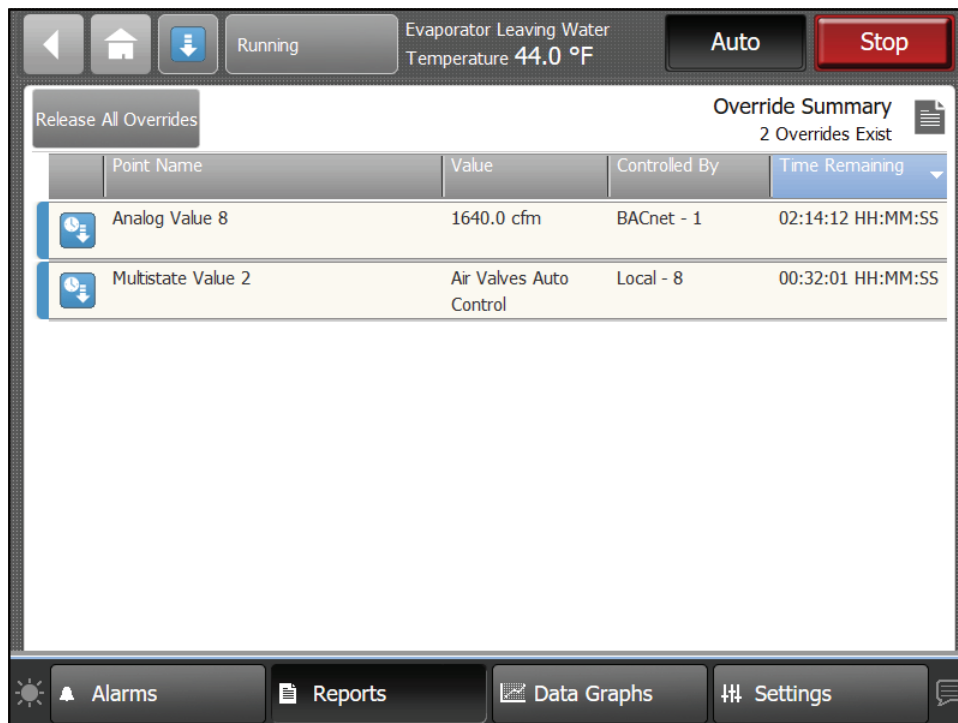


Temporary Override Icon

To release all overrides in the list, touch the **Release All Overrides** button (only points that are controlled at the AdaptiView user's priority level will be released).

Touch anywhere in a point row to navigate to the corresponding Point Override screen.

Figure 16. Override Summary screen



Release All Overrides

Override Summary
2 Overrides Exist

Point Name	Value	Controlled By	Time Remaining
Analog Value 8	1640.0 cfm	BACnet - 1	02:14:12 HH:MM:SS
Multistate Value 2	Air Valves Auto Control	Local - 8	00:32:01 HH:MM:SS

Alarms Reports Data Graphs Settings

Active Points Alarms and Event Log

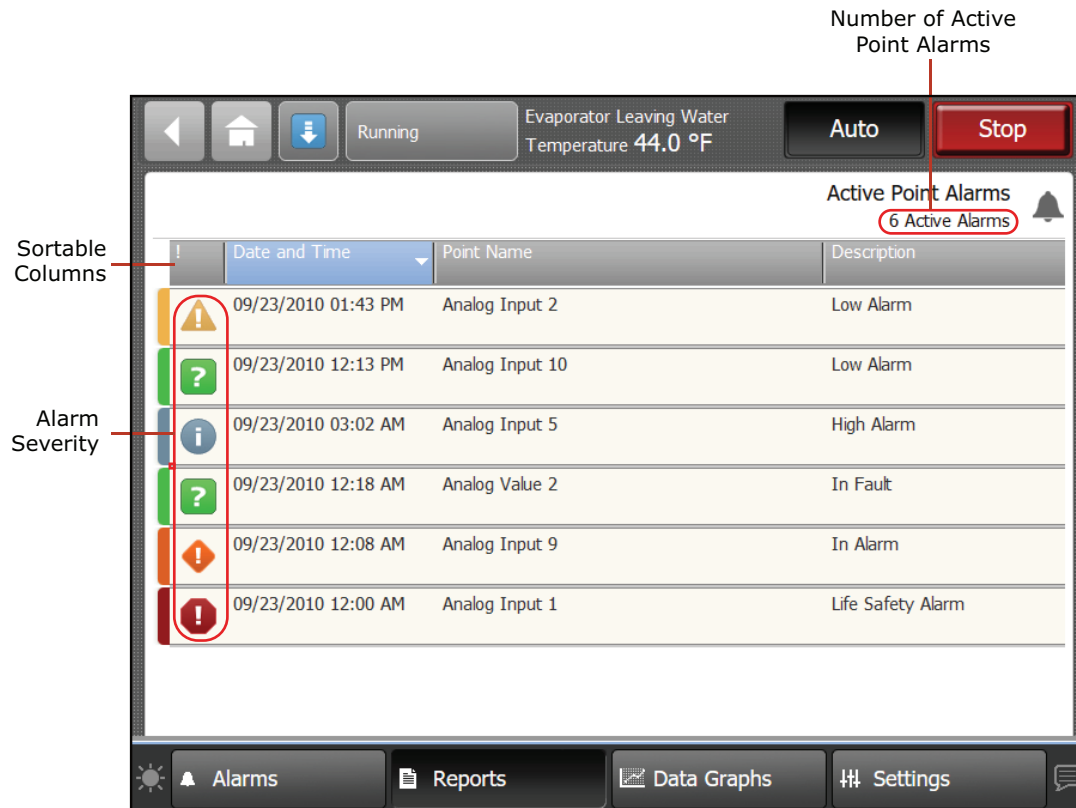
Active Point Alarms

Active Point Alarms appear on the AdaptiView™ display immediately upon detection. Touch the Active Point Alarms to view the Active Point Alarms.

The figure below shows the Active Point Alarms screen and commonly used functions. When the point alarm clears and the point returns to normal, the alarm will automatically be removed from the list. The number of active point alarms is displayed in the top right portion of the screen.

For the point alarms to appear on the AdaptiView display, the point must have an alarm notification class selected other than None when it was set up in Symbio™ UI or Tracer® TU. Additionally, the point must have entered the appropriate notification (In Alarm, When Failed, Return to Normal, or the notification class set to a value other than None).

Figure 17. Active Point Alarms screen



Event Log

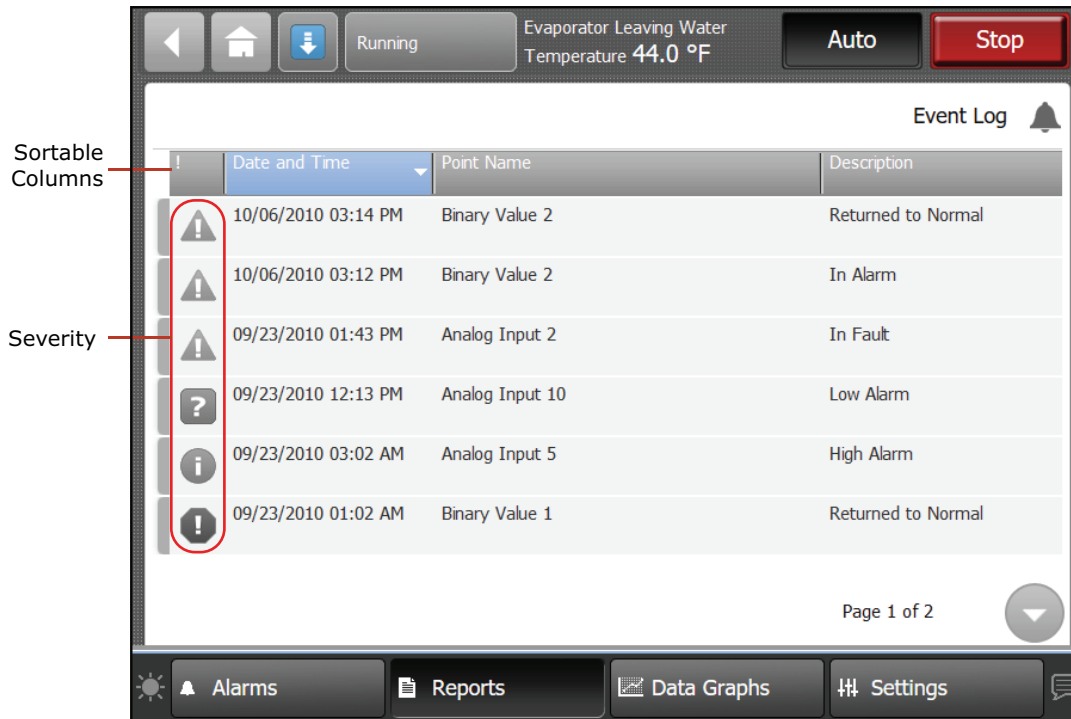
Touch the Event Log to view the Event Log.

Point Alarm icons appear in the left-most column of the Active Point alarms and Event Log screens.

They are identifiable by their shape and color.

The figure below shows the Event Log screen and commonly used functions.

For the events to appear on the AdaptiView display, the point must have an alarm notification class selected other than None when it was set up in Symbio™ UI or Tracer® TU. Additionally, the point must have entered the appropriate notification (In Alarm, When Failed, Return to Normal, or the notification class set to a value other than None).

Figure 18. Event Log screen


Point Alarm and Event Log Icons

Point Alarm icons appear in the left-most column of the Active Point alarms and Event Log screens. They are identifiable by their shape and color.

Active Alarm	Event Log	Notification Class / Severity
		Critical
		Service Required
		Warning
		Information
		None

Sorting Point Alarms and Event Log Events

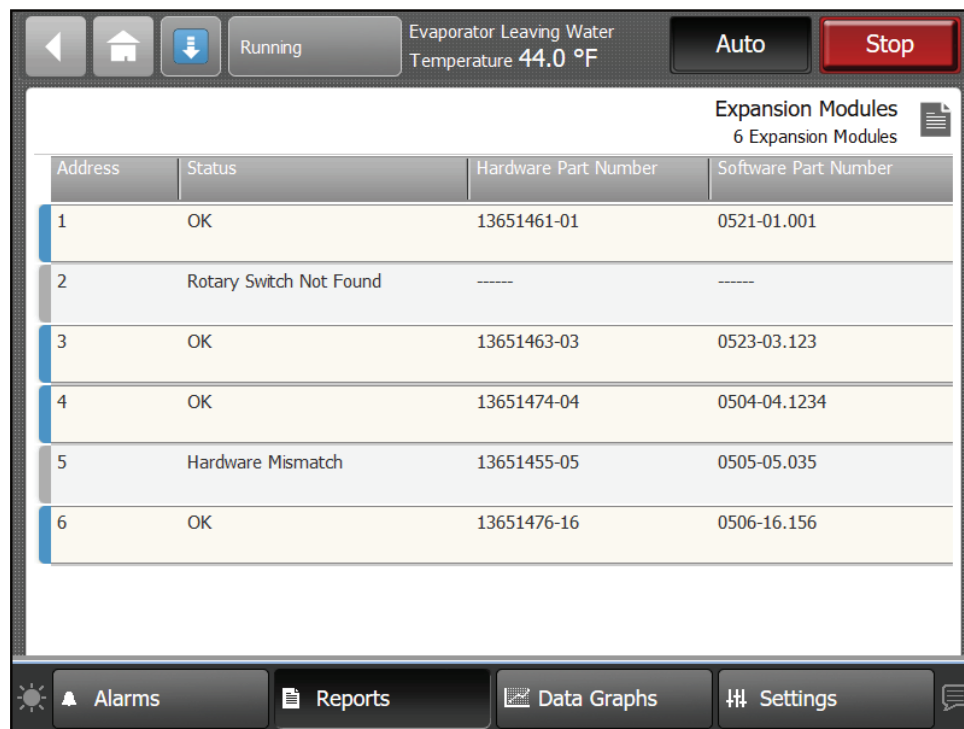
To sort point alarms or events in the event log by a category other than date and time, touch one of the other column headings in the table. The column heading responds by changing to blue, and the alarms table re-sorts according to the blue column heading. By touching the blue column heading again, the column will change the sort direction.

- **Severity (!):** Active alarms are at the top followed by the most severe.
- **Date and Time** (the default sort): Most recent alarms are at the top.
- **Point Name:** Alphabetical sort based on the point name.
- **Description:** Alarms are sorted alphabetically by description.

Expansion Modules

Touch the **Expansion Module** button to view the Expansion Modules screen. If expansion modules have been installed, they will appear in Expansion Modules screen as shown in the figure below.

Figure 19. Expansion Modules screen



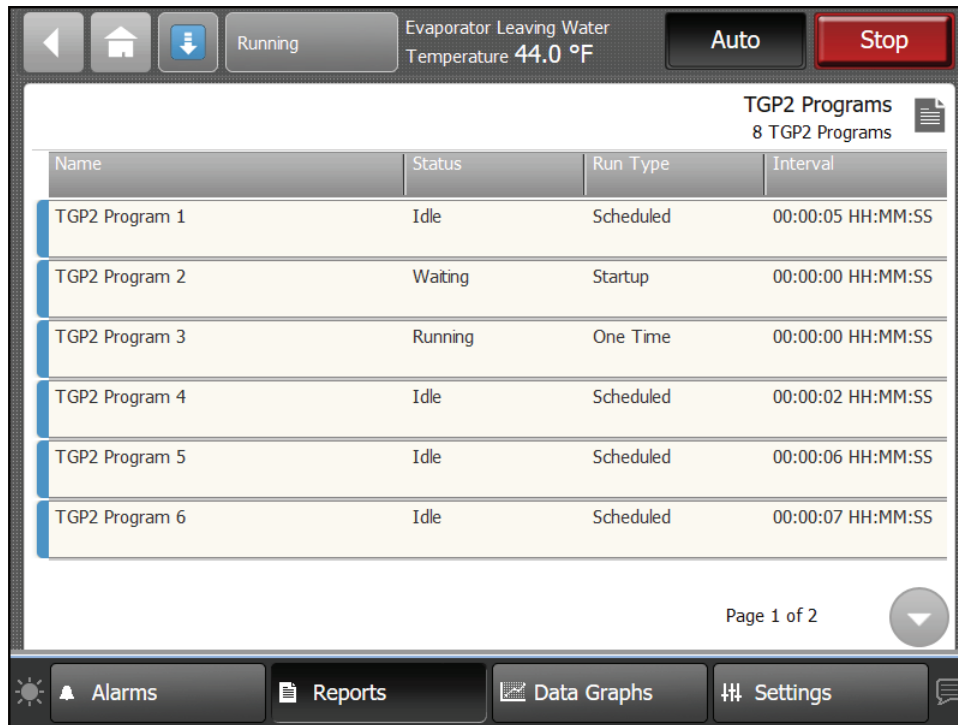
Address	Status	Hardware Part Number	Software Part Number
1	OK	13651461-01	0521-01.001
2	Rotary Switch Not Found	-----	-----
3	OK	13651463-03	0523-03.123
4	OK	13651474-04	0504-04.1234
5	Hardware Mismatch	13651455-05	0505-05.035
6	OK	13651476-16	0506-16.156

Expansion module screen columns:

- **Address** — This is the rotary address of the defined or discovered expansion module.
- **Status** — Under normal conditions, OK will display in this column. If not see *Tracer XM30, XM32, XM70, and XM90 Expansion Modules - Installation, Operation, and Maintenance* (BAS-SVX46*-EN) for more information.
- **Hardware Part Number** — This is the part number for the expansion module.
- **Software Part Number** — This is the version number of the software running in the expansion module.

TGP2 Programs

Touch the **TGP2 Programs** button to view the TGP2 Programs screen. All Tracer Graphical Programming (TGP2) programs that have been installed on the controller appear here. The program name, status, run type, and interval for each program is provided. Interval is the scheduled run interval for the program and is displayed in HH:MM:SS. If the run type is Startup or Event, the interval field will display all zeros.

Figure 20. TGP2 Programs screen


Name	Status	Run Type	Interval
TGP2 Program 1	Idle	Scheduled	00:00:05 HH:MM:SS
TGP2 Program 2	Waiting	Startup	00:00:00 HH:MM:SS
TGP2 Program 3	Running	One Time	00:00:00 HH:MM:SS
TGP2 Program 4	Idle	Scheduled	00:00:02 HH:MM:SS
TGP2 Program 5	Idle	Scheduled	00:00:06 HH:MM:SS
TGP2 Program 6	Idle	Scheduled	00:00:07 HH:MM:SS

Viewing the Log Sheet

On the Reports screen, touch **Log Sheet** to view the information that is itemized in the “[Appendix: Chiller Data](#),” p. 56. The items included in the Log Sheet are those recommended by Trane. See current Trane service literature for more information.

Viewing the ASHRAE Report

On the Reports screen, touch **ASHRAE Report** to view the information as itemized in the “[Appendix: Chiller Data](#),” p. 56.

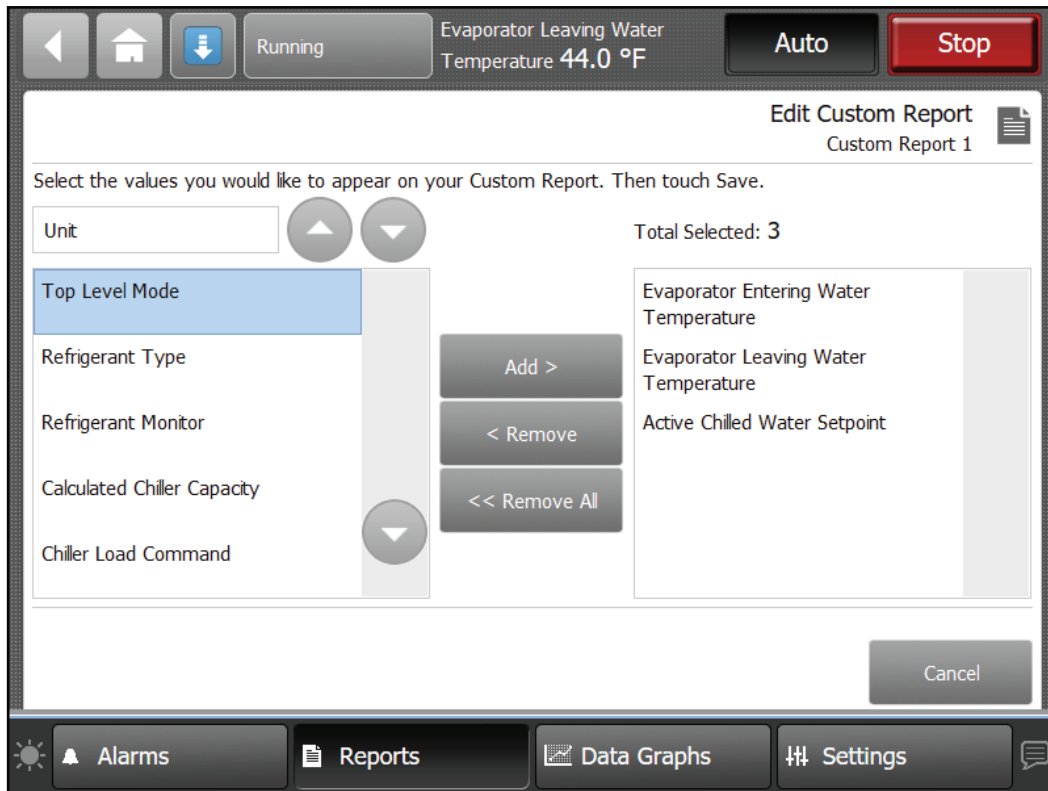
Creating and Viewing a Custom Report

You can create a custom report in which you specify the type and order of data that it contains. Items available to select for a custom report are grouped according to subsystem. (See Appendix for more information.)

To create and view a custom report:

1. On the Reports screen, touch **Custom Report**. The Custom Report screen appears.
2. On the Custom Report screen, touch **Edit**. The Edit Custom Report screen appears in the following figure.

Figure 21. Edit Custom Report screen



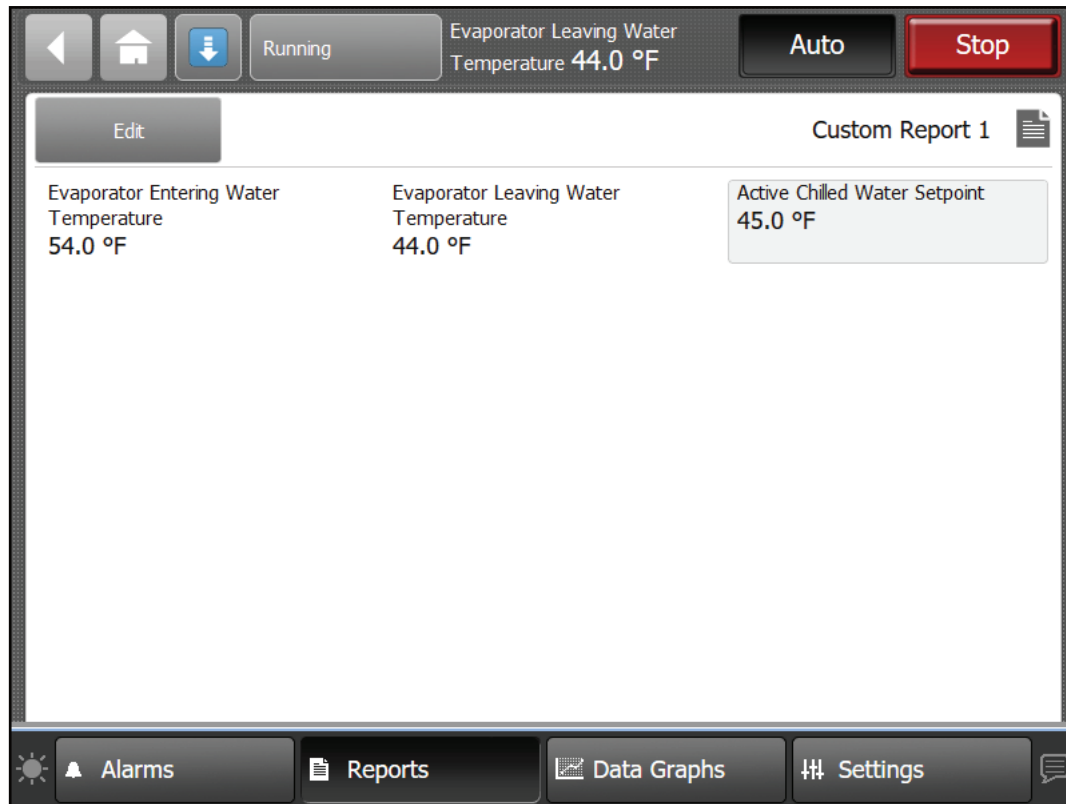
3. Touch the up/down arrows at the top of the left box on this screen to scroll through the items that are available to add to a custom report.
4. To add an item to a custom report, touch the item. It responds by changing to blue. Touch **Add** to move the selected item to the right box on the screen.

Note: Selections can be organized in any order by using the down arrows that appear in the right box, and by adding them one at a time in the order in which you want them to appear in your report.

5. To save and view your custom report, touch **Save**. The Custom Reports screen appears, containing the custom report you have just created as shown in the next figure.

Note: A page number appears in the lower right corner of the screen. If a screen contains more than one page, up/down arrows also appear for viewing the other pages, as in the following figure.

Figure 22. Custom Report screen



Editing a Custom Report

A custom report can be edited by adding, removing, or re-order data as follows:

1. On the Custom Report screen, touch **Add/Remove**. The **Add/Remove** screen appears.
2. Add, remove, or re-order as follows:
 - To add an item to the custom report, touch it. It responds by changing to blue. Use the arrows to scroll through the rest of the items that can be added to the custom report. Touch **Add** to move the selected item to the box on the right side of the screen.
 - To remove an item from the custom report, touch it. It responds by changing to blue. Use the arrows to scroll through the rest of the items that can be removed from the custom report. Touch **Remove** to move the selected item to the box on the left side of the screen.
 - To re-order items in the custom report, touch it. It responds by changing to blue. Use the arrows to change the order of a highlighted item.
3. To save and view your edited custom report, touch **Save**. The Custom Reports screen appears, containing the custom report you have just edited.

About

On the Reports screen, touch **About** to view the following unit information:

- Controller Name
- Unit Model Number
- Unit Sales Order Number
- Unit Serial Number
- Unit Manufacture Date
- Controller Build Part Number

- Controller Hardware Part Number
- Controller Hardware Serial Number
- Display Firmware Build
- Display Boot Code
- Controller Product Name

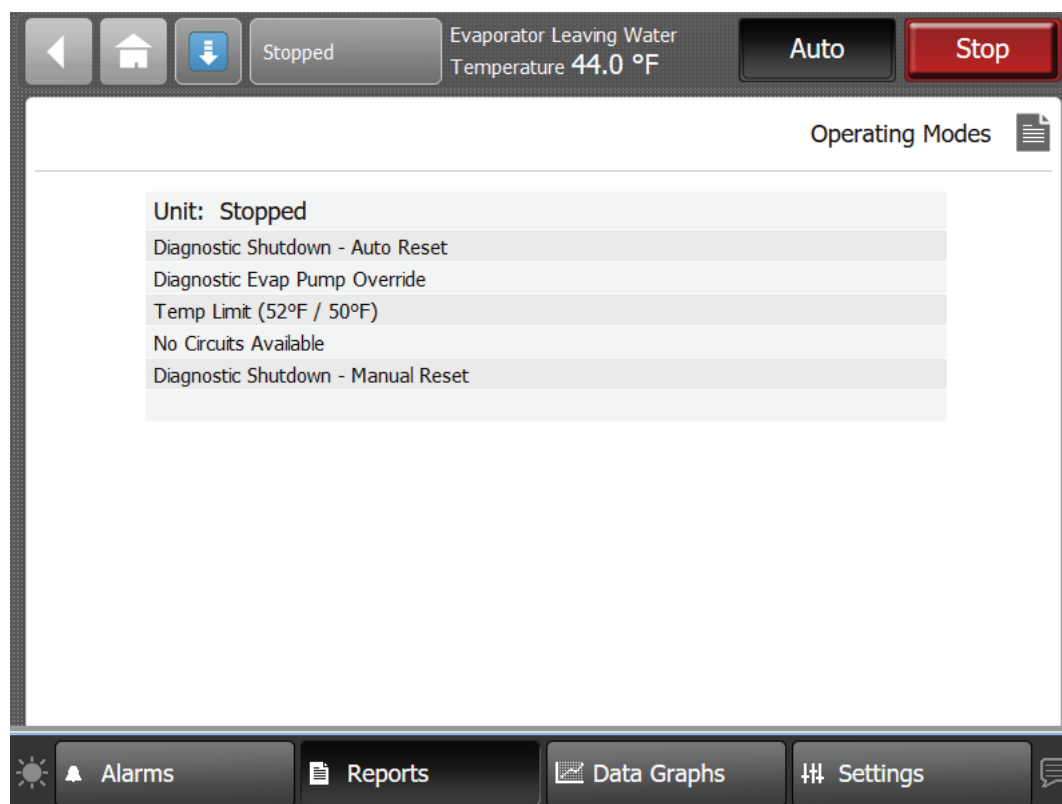
Viewing Operating Modes

On the Reports screen, touch **Operating Modes** to view the current operating status of the chiller in terms of the top-level operating mode and submodes.

Note: You can also access the Operating Modes screen from the chiller status button in the upper part of the screen.

The following figure shows an example of a Chiller Operating Modes screen.

Figure 23. Operating Modes screen



Chillers operate in one of the top-level operating modes; the following tables provide lists and descriptions of top-level modes and submodes.

Submodes are dependent on the top-level mode. Their appearance on the Operating Modes screen has the following characteristics:

- The newest submode appears at the top of the submode list.
- Submodes disappear when they no longer apply.
- The screen displays up to six submodes.
- If less than six submodes are active, the submode rows that do not apply are blank.

Table 4. Chiller top-level operating modes

Chiller Top-level Modes	Description
Stopped	Unit inhibited from running and will require user action to go to Auto.
Run Inhibit	Unit inhibited from running by Tracer, external BAS, or an Auto Reset diagnostic.
Auto	Unit determining if there is a need to run.
Air Run	Unit is in air run testing mode.
Waiting To Start	Unit waiting for tasks required prior to compressor start to be completed.
Starting Compressor	Unit is starting compressor.
Running	Compressor is running with no limits in effect.
Running – Limit	Compressor is running with limit in effect.
Shutting Down	Compressor has been stopped and unit is performing shutdown tasks.
MP Resetting	Unit is in the process of a power-up reset
Free Cooling	Unit is in the Free Cooling mode and will not run the compressor.

Table 5. Chiller sub-level operating modes

Top Level Mode	Unit Type	Chiller Sub-level Mode	BAS Code
MP Resetting	CTV	—	—
Stopped	CTV	Local Stop	00
Stopped	CTV	Panic Stop	00
Stopped	CTV	Diagnostic Sutdown — Manual Reset	00
Run Inhibit	CTV	Ice Building is Complete	100
Run Inhibit	CTV	Start Inhibited by BAS	100
Run Inhibit	CTV	External Source Inhibit	100
Run Inhibit	CTV	Diagnostic Shutdown – Auto Reset	100
Run Inhibit	CTV	Waiting For Evaporator Water Flow	58
All	CTV	Software Service Lock	—
Auto	CTV	Waiting For A Need To Cool	58
Auto	CTV	Waiting For A Need To Heat	58
Auto	CTV	Power Up Delay Inhibit: MIN:SEC	58
Air Run	CTV	Air Run - Run Time: MIN:SEC	—
Air Run	CTV	Air Run - Restart Wait Time: MIN:SEC	—
Air Run	CTV	Air Run - Time Delay : HR:MIN	—
Waiting to Start	CTV	Waiting For Condenser Water Flow	70
Waiting to Start	CTV	Waiting for Low Oil Differential Press	70
Waiting to Start	CTV	Establishing Oil Pressure	70
Waiting to Start	CTV	Pre-Lubrication Time: MIN:SEC	70
Waiting to Start	CTV	Restart Time Inhibit: MIN:SEC	70
Waiting to Start	CTV	High Vacuum Inhibit: Oil Sump Pres / Inhibit Press	70
Waiting to Start	CTV	Low Oil Temp Inhibit: Oil Temp / Inhibit Temp	70

Table 5. Chiller sub-level operating modes (continued)

Top Level Mode	Unit Type	Chiller Sub-level Mode	BAS Code
Waiting to Start	CTV	Waiting for Starter to Start: MIN:SEC	70
Waiting to Start	CTV	Waiting for IGV Position to Complete	70
Waiting to Start	CTV	AFD Restart Inhibit	70
Running	CTV	Hot Water Control	74
Running	CTV	Chilled Water Control	—
Running	CTV	Heat Recovery Active	—
Running	CTV	Surge	74
Running	CTV	Base Loaded	74
Running	CTV	Hot Gas Bypass	74
Running	CTV	Ice Building	74
Running	CTV	Ice to Normal Transition	74
Running	CTV	AFD: Performaing Re-Optimization	74
Running	CTV	Deamnd Limit Softloading	74
Running — Limit	CTV	Demand Limit	75
Running — Limit	CTV	Current Limit	—
Running — Limit	CTV	Phase Unbalance Limit	75
Running — Limit	CTV	Condenser Pressure Limit	75
Running — Limit	CTV	Evaporator Temperature Limit	75
Running — Limit	CTV	High AFD Temp	—
Running — Limit	CTV	Capacity Limited By High AFD Temp	—
Running — Limit	CTV	Minimum Capacity Limit	75
Running — Limit	CTV	Maximum Capacity Limit	75
Running — Limit	CTV	High Discharge Temp Limit	75
Running — Limit	Gear Drive Only	High Lift Unloading Limit	75
Running — Limit	CTV	Evap Rfgt Temp Higher Than Selection	—
Free Cooling	CTV	Opening Free Cooling Valves	09
Free Cooling	CTV	Closing Free Cooling Valves	09
Preparing Shutdown	CTV	Closing IGV — IGV Positon %	7E
Shutting Down	CTV	Post-Lubrication Time: MIN:SEC	7E
Shutting Down	CTV	Evaporator Pump Off Delay: MIN:SEC	7E
Shutting Down	CTV	Condenser Pump Off Delay: MIN:SEC	7E
Multiple	CTV	Overdrivin IGV Closed	—
Multiple	CTV	Oil Pump Override	—
Multiple	CTV	Evaporator Pump Override	—
Multiple	CTV	Condenser Pump Override	—
Multiple	CTV	Manual Compressor Control Signal	—

Table 5. Chiller sub-level operating modes (continued)

Top Level Mode	Unit Type	Chiller Sub-level Mode	BAS Code
Multiple	CTV	Waiting for Starter Interlock	—
Multiple	CTV	Waiting for BAS Communication	—
Multiple	CTV	Closing IGV	—
Multiple	CTV	Min Capacity Time Remaining	—
Multiple	CTV	Starter Dry Run	—
Multiple	CTV	AFD Control RE-Optimizing	—
Multiple	CTV	Manual IGV Override	—
Multiple	CTV	Manual IGV and AFD Override	—
Multiple	CTV	Hot Gas Time Remaining: MIN:SEC	—
Multiple	CTV	Starting Generator	—
Multiple	CTV	Generator Running	—
Multiple	CTV	Manual Evaporator Water Pump Override	—
Multiple	CTV	Manual Condenser Water Pump Override	—
Multiple	CTV	BAS Evaporator Water Pump Override	—
Multiple	CTV	BAS Condenser Water Pump Override	—
Multiple	CTV	Satisfied Need to Cool	—
Multiple	CTV	Satisfied Need to Heat	—
Multiple	CTV	Satisfied Minimum Capacity Timer	—

Data Graphs

The AdaptiView™ display can be used to view a variety of default data graphs and to create up to six custom data graphs with up to eight data points per graph. The default sample rate is 30 seconds. Default storage duration is 8 days. These rates can be adjusted.

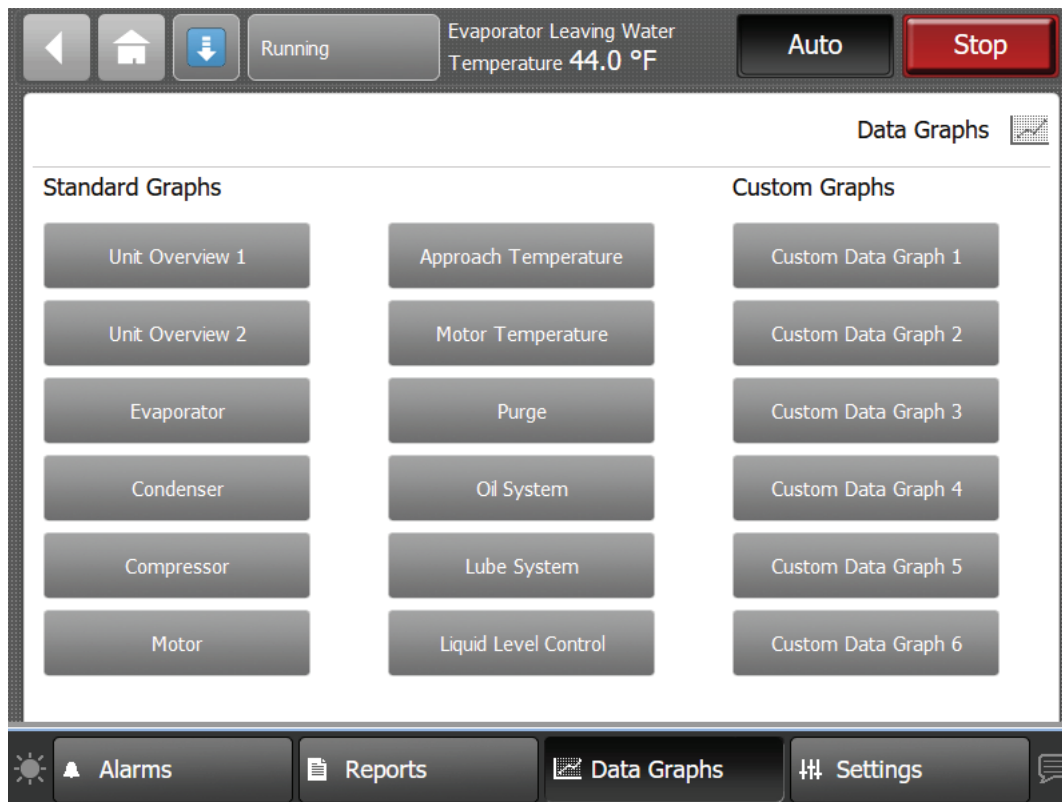
Data Graphs Screen

Touch the **Data Graphs** button in the main menu area to view the Data Graphs screen shown in the following figure. Each button on the screen links to a data graph.

The buttons under the Default Graphs heading for chillers are:

- Unit Overview 1
- Unit Overview 2
- Evaporator
- Condenser
- Compressor
- Motor
- Approach Temperature
- Motor Temperature
- Purge
- Oil System
- Lube System
- Liquid Level Control

Figure 24. Data Graphs screen

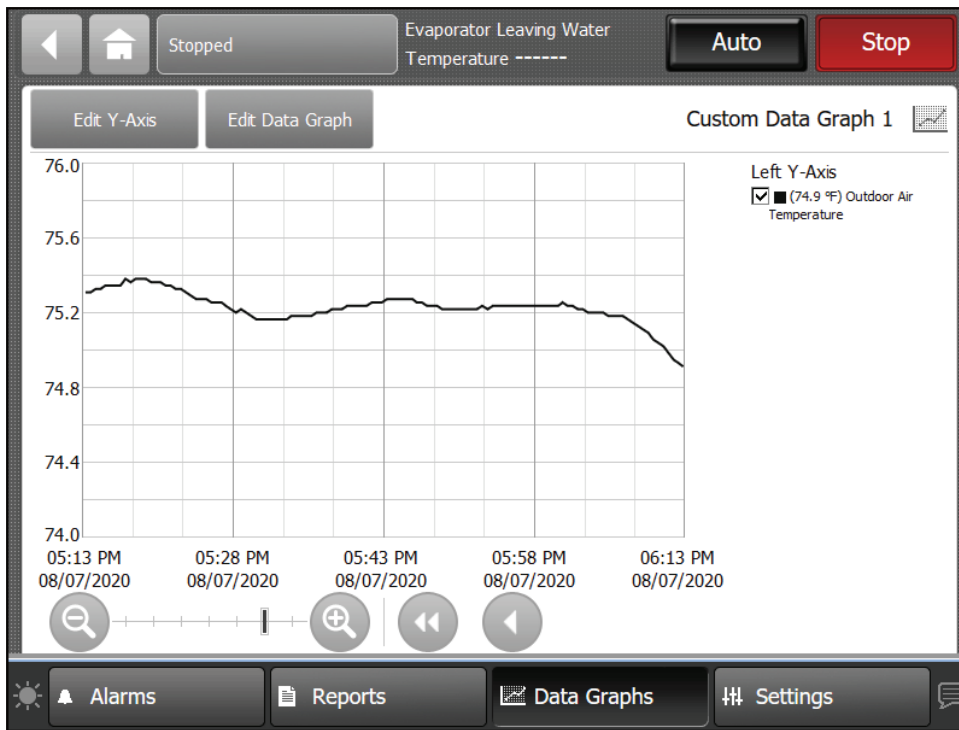


Viewing Data Graphs

On the Data Graphs screen, touch any of the buttons to view a live graph. (The following figure shows Custom Graph 1 as an example). For every graph, the X-axis shows time. The Y-axis presents data points specific to each graph. The data points are

listed in the “Appendix: Chiller Data,” p. 56.

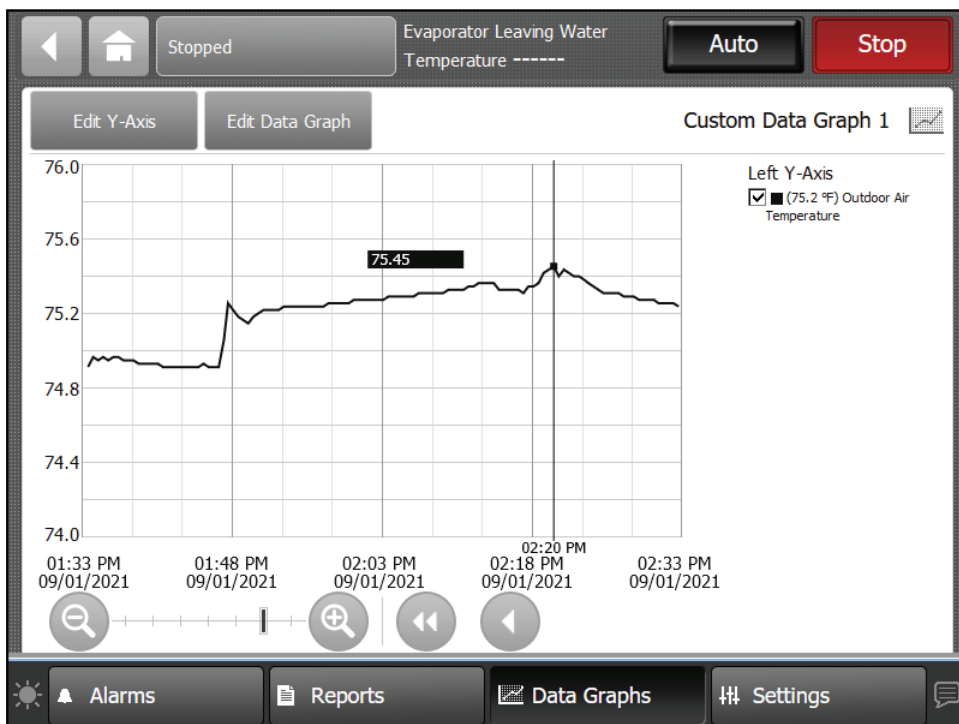
Figure 25. Example of Data Graph (Custom Graph 1 shown)



Data Graphs Tooltip

The Tooltip feature allows the user to touch any location on the graph to temporarily display value(s) at a specific point in time.

Figure 26. Example of Data Graph Tooltip feature



Changing the Scales on Data Graphs

Changing the Scale of the X-axis

The X-axis scale defaults to the most recent 60 minutes with 15 minutes intervals. Labels appear across the bottom of the graph. The scale can be changed to 20 minutes (minimum) up to 8 days (maximum). Options are as follows:

- 20-minute graph with 5 minute intervals
- 60-minute graph with 15 minute intervals
- 4-hour graph with 1 hour intervals
- 12-hour graph with 3 hour intervals
- 1-day graph with 6 hour intervals
- 2-day graph with 12 hour intervals
- 8-day graph with 2 day intervals

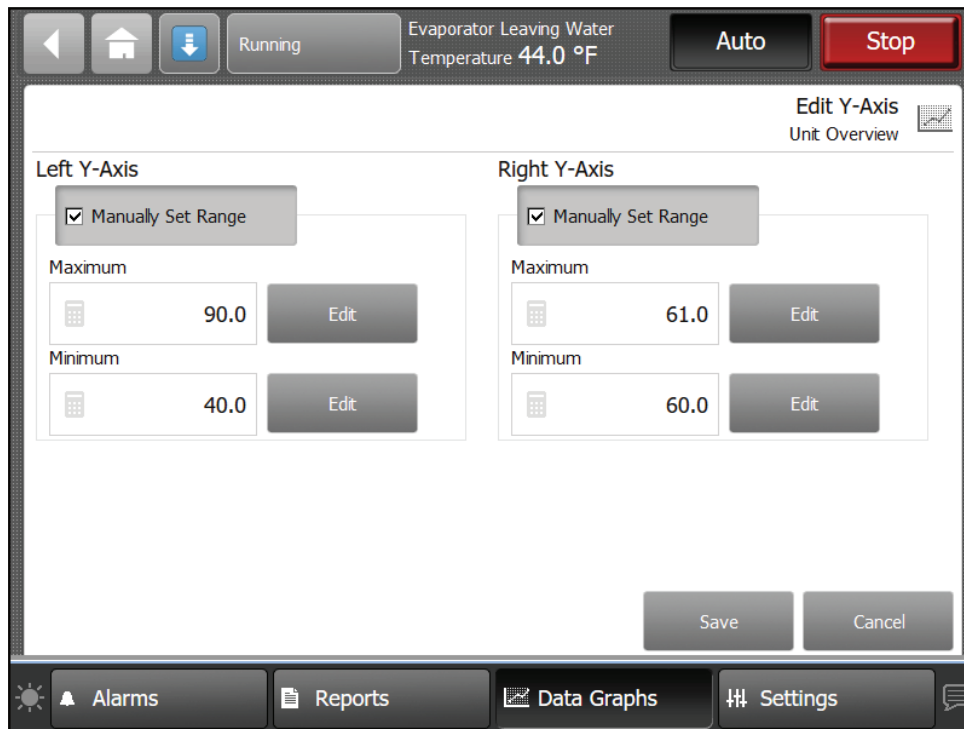
To change the scale, touch the plus or minus button in the magnifying glass in the lower left corner of a data graph that you want to edit. The slider scale moves to the right or left as you touch either the plus or minus button. The time scale for the X-axis changes in response.

Changing the Scale of the Y-axes

The Y-axes scales have a default range that varies for each data graph. You can change the range for each graph.

1. Touch the **Edit Y-Axis** button at the bottom of a data graph that you want to edit. The Set Axis Range screen appears in the following figure. The screen shows the minimum and maximum values for that particular graph.

Figure 27. Set Axis Range screen



The screenshot shows the 'Set Axis Range' screen within a Trane control interface. At the top, there's a status bar with navigation icons (back, home, download), a 'Running' indicator, and a temperature reading 'Evaporator Leaving Water Temperature 44.0 °F'. To the right are 'Auto' and 'Stop' buttons. Below this is a header for 'Edit Y-Axis' with a 'Unit Overview' link and a graph icon. The main area is divided into two sections: 'Left Y-Axis' and 'Right Y-Axis'. Each section has a 'Manually Set Range' checkbox (checked) and two input fields: 'Maximum' and 'Minimum'. For the Left Y-Axis, the Maximum is 90.0 and the Minimum is 40.0. For the Right Y-Axis, the Maximum is 61.0 and the Minimum is 60.0. Each input field has an 'Edit' button to its right. At the bottom right of the main area are 'Save' and 'Cancel' buttons. The bottom of the screen features a navigation bar with icons and labels for 'Alarms', 'Reports', 'Data Graphs' (which is highlighted), and 'Settings'.

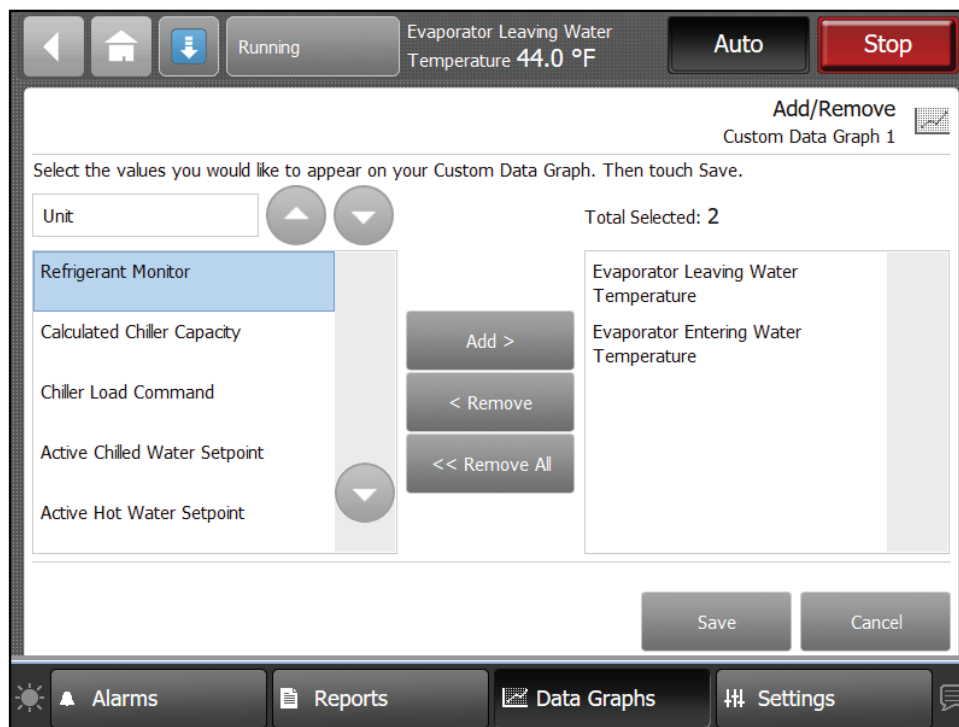
2. Touch the **Manually set values** button under either the Left Y-Axis or Right Y-Axis heading. **Enter number** buttons appear to the right of the minimum and maximum values.
3. Touch the **Enter number** button for the value you want to change. A keypad appears on the screen.
4. Touch the appropriate numbers to change the current value. The new value appears above the keypad.
5. Touch the **Enter** button. The graph you were previously viewing appears with changed maximum and/or minimum values.
6. Touch **Save**. The data graph appears with changed Y-axes scales.

Custom Data Graphs

Creating Custom Data Graph

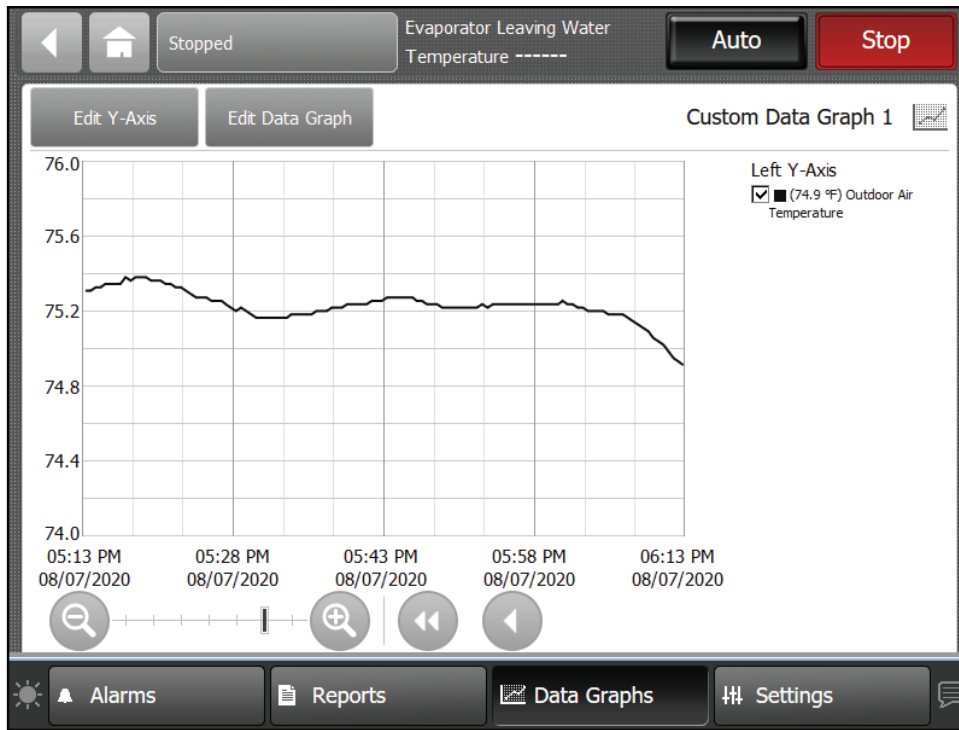
1. Navigate to the Data Graphs screen, then touch one of the **Custom Data Graph** buttons in the right column. The Custom Data Graph screen appears.
2. Touch the **Edit Data Graph** button. The Add/Remove screen will appear.
3. Touch the up/down arrows at the top of the left box on the Add/Remove screen to scroll through a list of chiller subcomponents. The list of items in the box just below the up/down arrows changes to correspond to the subcomponent choice. (For reference, these items are listed in the Appendix.)

Figure 28. Add/Remove screen example



4. Choose points to include in the custom data graph as follows:
 - To add one item at a time, touch the item in the left box. It responds by changing to blue. Touch **Add** to move the selected item to the right box.
 - To remove one item at a time, touch the item in the right box. It responds by changing to blue. Touch **Remove** to move the selected item to the left box.
 - To remove all of the items in the right box to the left box, touch **Remove All**. A confirmation screen appears, asking you to verify your request.
5. When data point selections are complete, touch the **Save** button. The Edit Data Graph screen appears, which reflects the selected values. Touch the **View Data Graph** button to display the new graph.

Figure 29. Custom Data Graph example

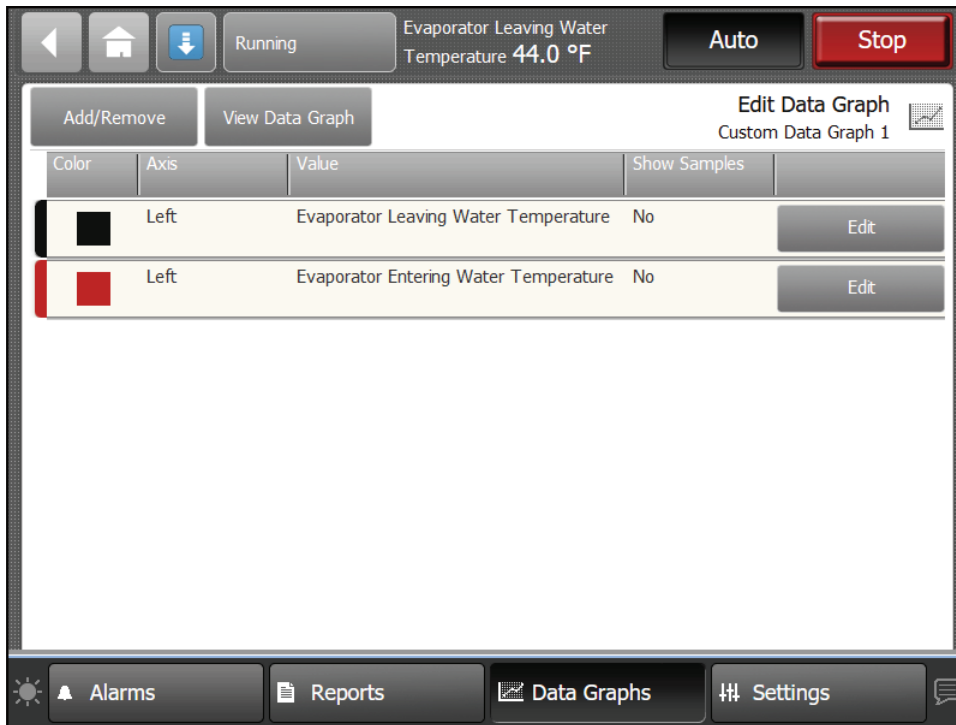


Editing Custom Data Graphs

Custom data graphs may be edited by:

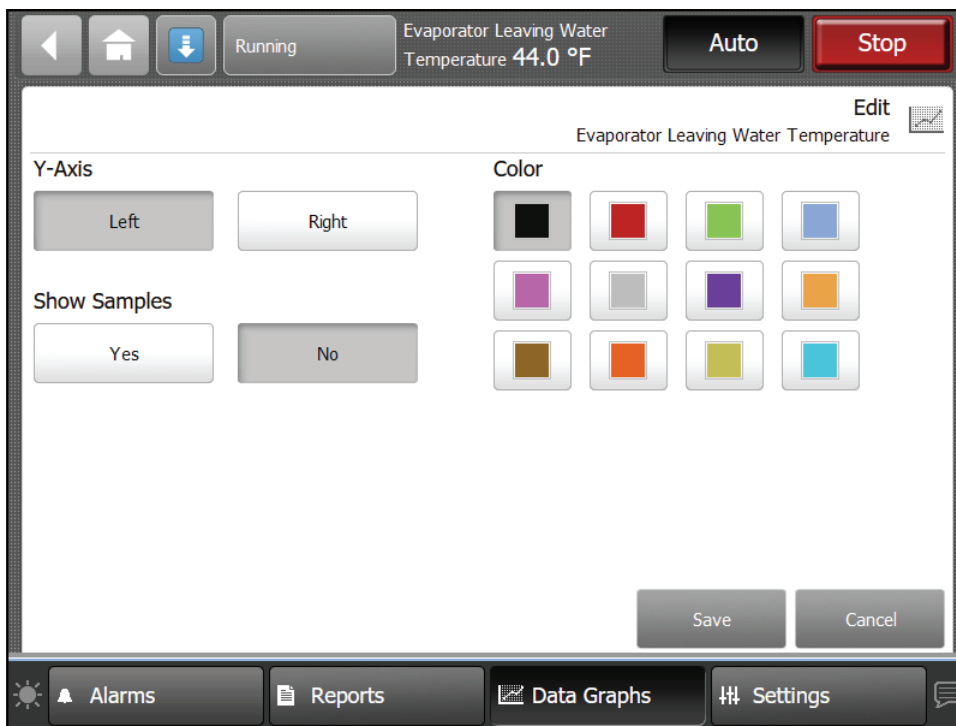
- Changing the axis scales
 - Changing Y-axis location between left and right
 - Changing line color
 - Selecting whether to Show Samples (yes/no)
1. Use the Edit Data Graph screen to modify the data graph. To edit a data point, touch the **Edit** button that corresponds to the value that you want to change. Only one value can be edited at a time.

Figure 30. Edit Data Graph screen (after values have been added)



- From the Edit screen, you can choose which Y-axis to display the value, a color, and whether or not to show data samples. Touch **Save** button when finished.

Figure 31. Customizing the Data Graph



- Repeat the process with remaining values.



Equipment Settings

A variety of equipment settings can be viewed and changed using the AdaptiView™ display.

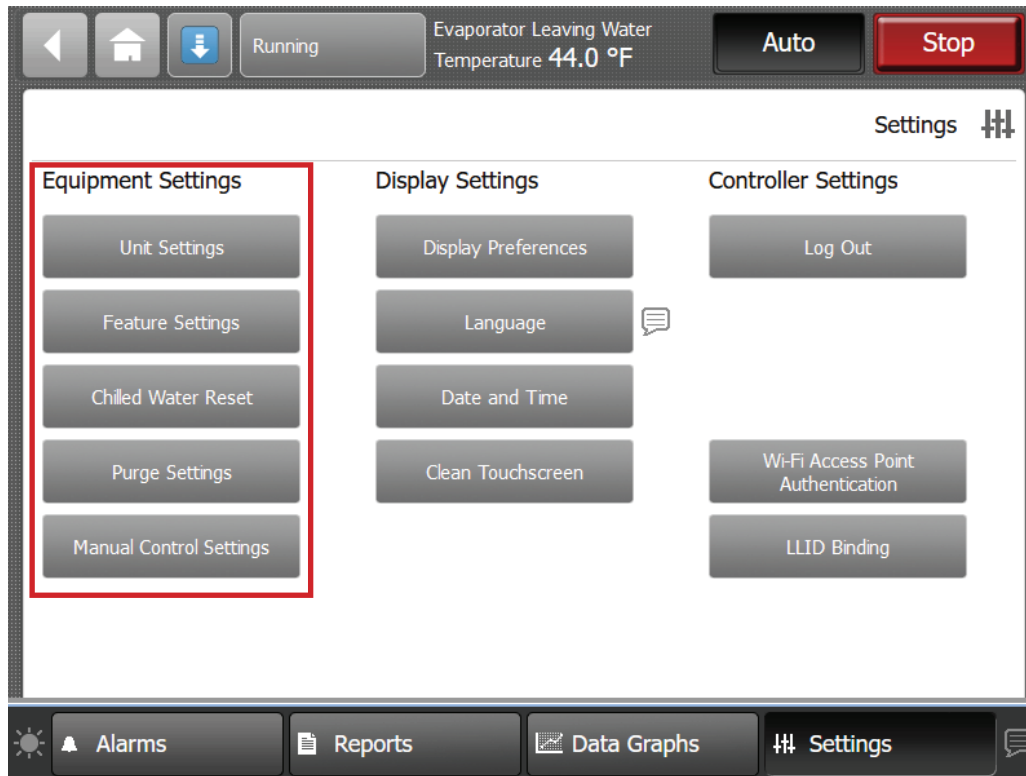
Settings Screen

Touch the **Settings** button in the main menu area to view the Settings screen. *Equipment Settings* identifies a column of buttons located on the screen. The buttons are:

- Unit Settings
- Feature Settings
- Chilled Water Reset
- Purge Settings
- Manual Control Settings

Each of these buttons provide access to a screen that contains additional buttons related to each topic. This section provides detailed information about these screens.

Figure 32. Settings screen with the Equipment Settings column highlighted

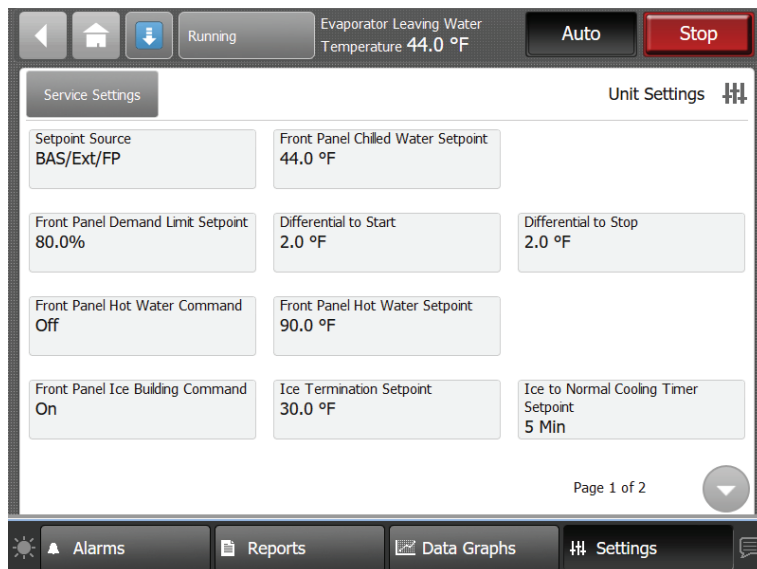


Viewing and Changing Equipment Settings

Each button in the Equipment Settings column on the Settings screen takes you to a menu screen that contains a group of buttons. Each button displays the name of a setting and its current value (refer to the following figure). Touch any button to view a screen where you can change the setting for the feature shown on the button.

Note: A page number appears in the lower right corner of the screen. If a screen contains more than one page, up/down arrows also appear for viewing the other pages, as in the following figure.

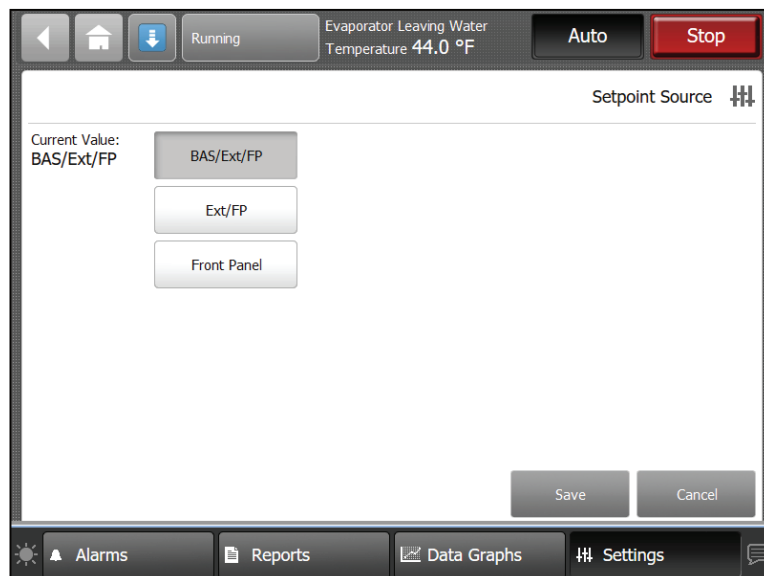
Figure 33. Example equipment settings screen (Unit Settings shown)



To change an equipment setting, follow this procedure:

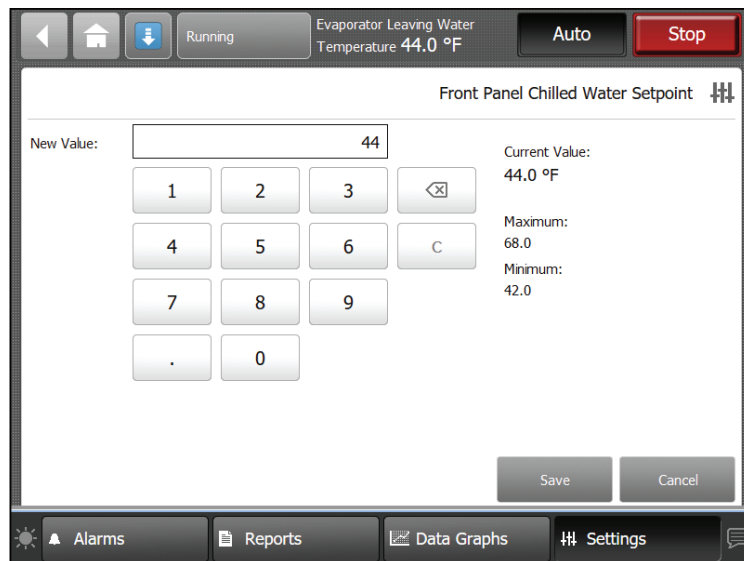
1. Touch one of the buttons in the Equipment Settings column on the Settings screen, such as Unit Settings. The corresponding screen appears (in this case, the Unit Settings screen).
2. Touch the button that shows the equipment setting you want to change. A screen that allows you to change the equipment setting appears. There are two types of these screens:
 - For screens with button selections, touch the button that represents the setting you want. The button becomes shaded, and a **Save** button appears at the bottom of the screen as shown in the following figure.

Figure 34. Example equipment settings screen with buttons for changing setting



- For screens with numerical keypads, touch the appropriate numbers to change the current value as shown in the following figure. The new value appears above the keypad.

Figure 35. Example equipment settings screen with keypad for changing setting



The screenshot shows a control interface for a Trane system. At the top, there's a status bar with 'Running' and 'Evaporator Leaving Water Temperature 44.0 °F'. Below this, the main title is 'Front Panel Chilled Water Setpoint'. The interface includes a keypad for entering a 'New Value' (currently 44), a 'Current Value' (44.0 °F), and a range with 'Maximum: 68.0' and 'Minimum: 42.0'. Navigation buttons like 'Auto', 'Stop', 'Save', and 'Cancel' are present. A bottom menu bar contains icons for 'Alarms', 'Reports', 'Data Graphs', and 'Settings'.

Keypad features:

- When you enter a new number, the value in the **New Value** field is deleted and replaced with the new entry.
- The backspace (arrow) key deletes the characters you previously entered.
- If the keypad is used to enter a setpoint that is out of range, an error dialog will appear when you touch the **Save** button.
- Keypads that allow negative numbers have positive and negative number (+/-) keys.

3. Touch **Save** to complete the change. The current value is updated in the upper left side of the screen, demonstrating that the change has been communicated to the controller. The screen you were previously viewing appears.

Note: Manual Control Settings screens have Apply buttons in addition to Save buttons. Touching Apply is the same as touching Save, except that you remain at the current screen after the change is communicated to the controller.

Service Settings

The following table lists the settings that are available as buttons on the Service Settings menu screen, along with their corresponding setting options. The chiller configuration determines which of the settings appear.

Important: Service settings screen should ONLY be used by experienced service personnel.

Table 6. Service Settings menu screen: Buttons and available settings options

Evaporator Water Temp Cutout XX.X °F/C	Low Refrigerant Temperature Cutout XX.X °F/C	Local Atmospheric Pressure XX.X PSIA/kPaA
Minimum Capacity Limit XXX.X %	Maximum Capacity Limit XXX.X %	—
Check Oil Filter Setpoint or Check Lube Filter Setpoint XX.XX PSID/kPaD	Startup Lube Diff Pressure Threshold XX.XX PSID/kPaD	—
Capacity Control Softload Time XXXX Sec	Demand Limit Softload Time XXXX Sec	Demand Limit Startup Target XXX.X %
Condenser Pressure Limit Setpoint XXX.X %	Head Pressure Control Pre-Position Setpoint XXX.X %	—

Unit Settings

The following table lists the settings that are available as buttons on the Unit Settings menu screen, along with their corresponding setting options. The chiller configuration determines which of the settings appear.

Table 7. Unit Settings menu screen: Buttons and available setting options

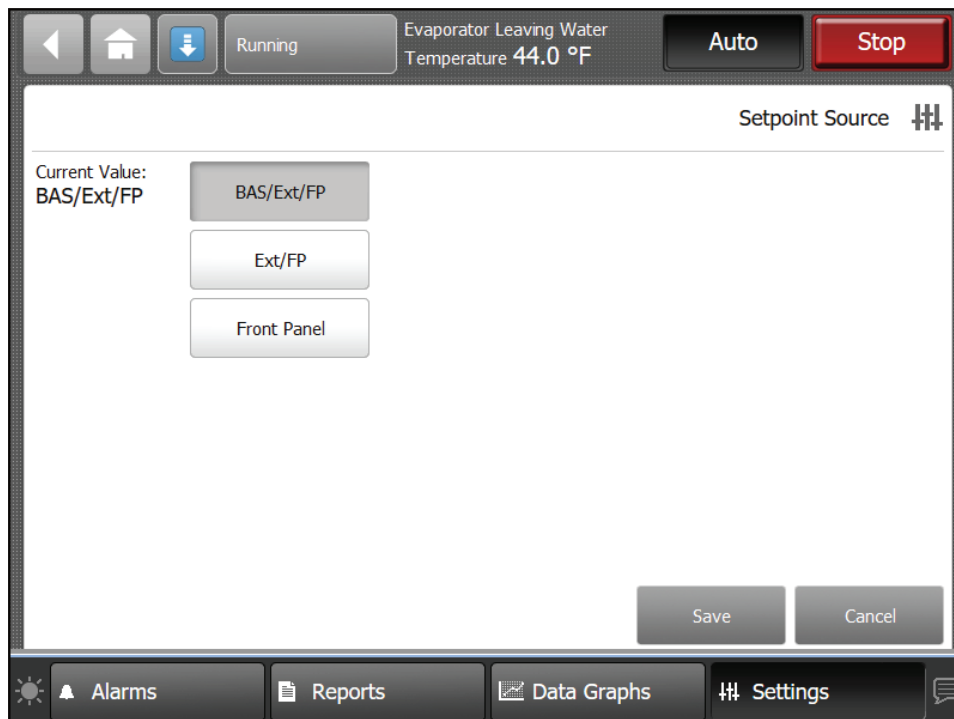
Setpoint Source BAS/Ext/FP Ext/FP Front Panel	Front Panel Chilled Water Setpoint XX.X °F/C	—
Front Panel Demand Limit Setpoint XXX.X %	Differential to Start XX.X °F/C	Differential to Stop XX.X °F/C
Front Panel Hot Water Command Off/On	Front Panel Hot Water Setpoint XXX.X °F/C	—
Front Panel Ice Building Command Off/On	Ice Termination Setpoint XX.X °F/C	Ice to Normal Cooling Timer Setpoint XX Min
Front Panel Base Loading Command Off/On	Front Panel Base Loading Setpoint XXX.X %	—
Front Panel Free Cooling Command Off/On	—	—
Evaporator Water Pump Off Delay XX Min	Condenser Water Pump Off Delay XX Min	Evap Low Water Flow Warning Setpoint XXXX.X gpm/lpm
Power-Up Start Delay XXX Sec	Chiller Power Demand Time Period XX Min	—

Setpoint Source

Allows selection of the active source of setpoints and settings:

- **BAS** – Result of arbitration from external controls (For example: Tracer® SC+, TGP2, 3rd party system control).
- **External** – Isolates unit setpoints and settings to local wired or wireless sources. Removes BAS Sources.
- **Front Panel** – Isolates unit to TD-12 display setpoints and settings. Removes External and BAS sources.

Figure 36. Setpoint Source screen



Feature Settings

The following table lists the settings that are available as buttons on the Feature Settings menu screen, along with their corresponding setting options. The chiller configuration determines which of the settings appear.

Table 8. Feature Settings menu screen: Buttons and available setting options

External Chilled Water Setpoint Enable Enable/Disable	External Demand Limit Setpoint Enable Enable/Disable	Ice Building Feature Enable Enable/Disable
Hot Gas Bypass Feature Enable Enable/Disable	Hot Gas Bypass Maximum Timer Enable Enable/Disable	Minimum Capacity Timer Enable Enable/Disable
External Base Loading Setpoint Enable Enable/Disable	Check Oil Filter Diagnostic Enable or Check Lube Filter Diagnostic Enable Enable/Disable	—

Chilled Water Reset

Table 9. Chilled Water Reset menu screen: buttons and available setting options

Chilled Water Reset Type Disable/Return/Outdoor Air/Constant	—	—
Return Water Reset Ratio XXX.X%	Return Water Start Reset XXX.X °F/C	Return Water Maximum Reset XXX.X °F/C
Outdoor Air Reset Ratio XXX.X%	Outdoor Air Start Reset XXX.X °F/C	Outdoor Air Maximum Reset XXX.X °F/C

Purge Settings

Table 10. Purge Settings menu screen: buttons and available setting options

Purge Mode Setting Stop/Adaptive/Auto/On	Daily Pumpout Limit XXX Min	Disable Daily Pumpout Limit XX Hr
Purge Liquid Temperature Inhibit Enable/Disable	Purge Liquid Temperature Limit XX.X °F/C	—

Manual Control Settings

Important: Manual Control Settings features should *ONLY* be used by experienced service personnel.

Table 11. Manual Control Settings menu screen: buttons, available setting options, and status points

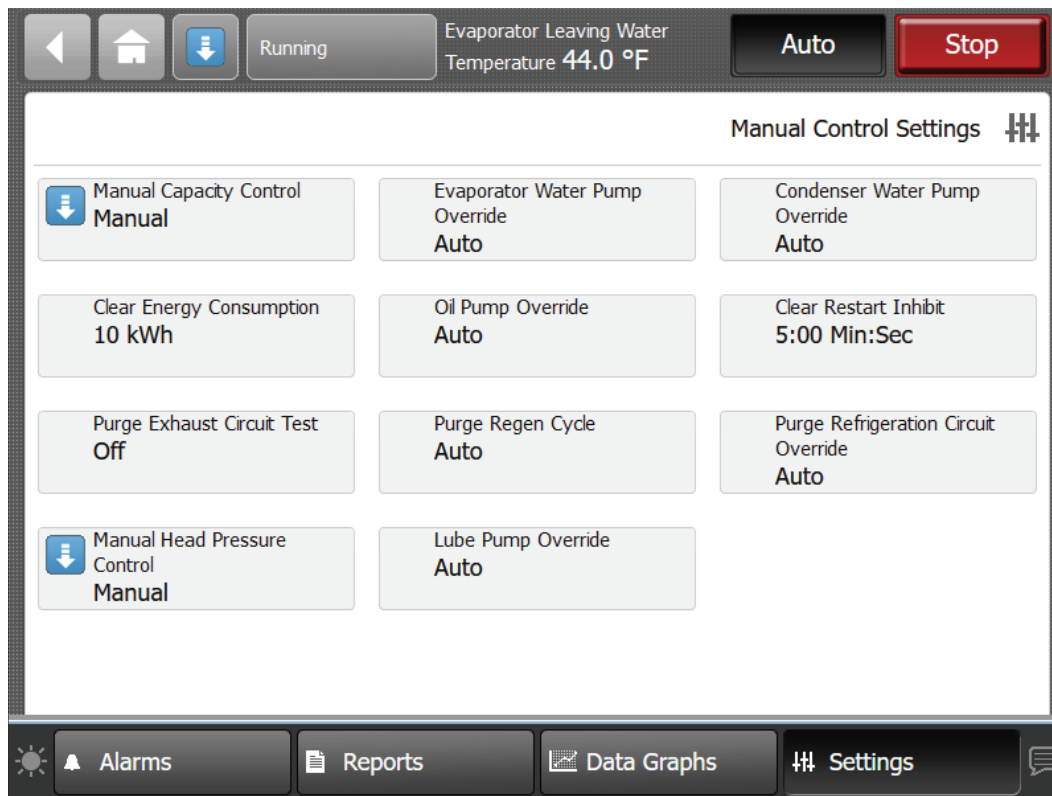
Manual Capacity Control Auto/Manual	Evaporator Water Pump Override Auto / On	Condenser Water Pump Override Auto / On
Clear Energy Consumption XXXX kWh	Oil Pump Override Auto / On	Clear Restart Inhibit XX:XX Min:Sec
Purge Exhaust Circuit Test Off/On	Purge Regen Cycle Auto/On	Purge Refrigeration Circuit Override Auto / On
Manual Head Pressure Control Auto/Manual	Lube Pump Override Auto/On	—

Changing a Manual Control Setting

To change a manual control setting:

1. In the Equipment Settings column on the Settings screen, touch **Manual Control Settings**. The Manual Control Settings screen appears as shown in the following figure.

Figure 37. Manual Control Settings screen



2. Touch the button that shows the manual control setting you want to change. A screen for changing the manual control setting appears as shown in the following figure.
3. Touch the button that represents the setting you want. The button becomes shaded and **Apply** and **Save** buttons appear at the bottom of the screen.

Note: The Compressor Control Signal screen provides up/down arrow keys and numerical fields for selecting a value.

4. To save your change, do one of the following:
 - Touch **Apply**. The change is communicated to the Symbio™ 800 controller. You can observe the status points in the lower half of the screen change in response to the setting change you just made. Also, a Manual Override button appears in the upper left corner of the screen (refer to the following figure).
 - Touch **Save**. The change is communicated to the Symbio™ 800 controller. The screen you were previously viewing appears.

The screenshot displays a control interface for an evaporator water pump. At the top, a status bar shows navigation icons (back, home, download), a 'Running' indicator, and sensor data: 'Evaporator Leaving Water Temperature 44.0 °F'. To the right are 'Auto' and 'Stop' buttons. The main title is 'Evaporator Water Pump Override' with a settings icon. The interface is divided into sections: 1. Control Section: 'Current Value: Auto' and 'Evaporator Water Pump Command Off'. It features 'Auto' and 'On' buttons. 2. Action Section: 'Apply', 'Save', and 'Cancel' buttons. 3. Data Section: Three readouts: 'Evaporator Pump Override Time Remaining: 0:40 Min:Sec', 'Evaporator Water Flow Status: Flow', and 'Evaporator Leaving Water Temperature: 44.0 °F'. 4. Setpoint Section: A box showing 'Active Chilled Water Setpoint: 45.0 °F'. The bottom navigation bar includes icons and labels for 'Alarms', 'Reports', 'Data Graphs', and 'Settings'.

Section	Item	Value / Label
Status Bar	Running	Running
Status Bar	Evaporator Leaving Water Temperature	44.0 °F
Control	Current Value	Auto
Control	Evaporator Water Pump Command	Off
Control	Action Buttons	Auto, On
Action	Action Buttons	Apply, Save, Cancel
Data	Evaporator Pump Override Time Remaining	0:40 Min:Sec
Data	Evaporator Water Flow Status	Flow
Data	Evaporator Leaving Water Temperature	44.0 °F
Setpoint	Active Chilled Water Setpoint	45.0 °F

Display Settings

The Tracer® AdaptiView™ display can be used to change the format of the information that appears on the display, and to clean the touch screen.

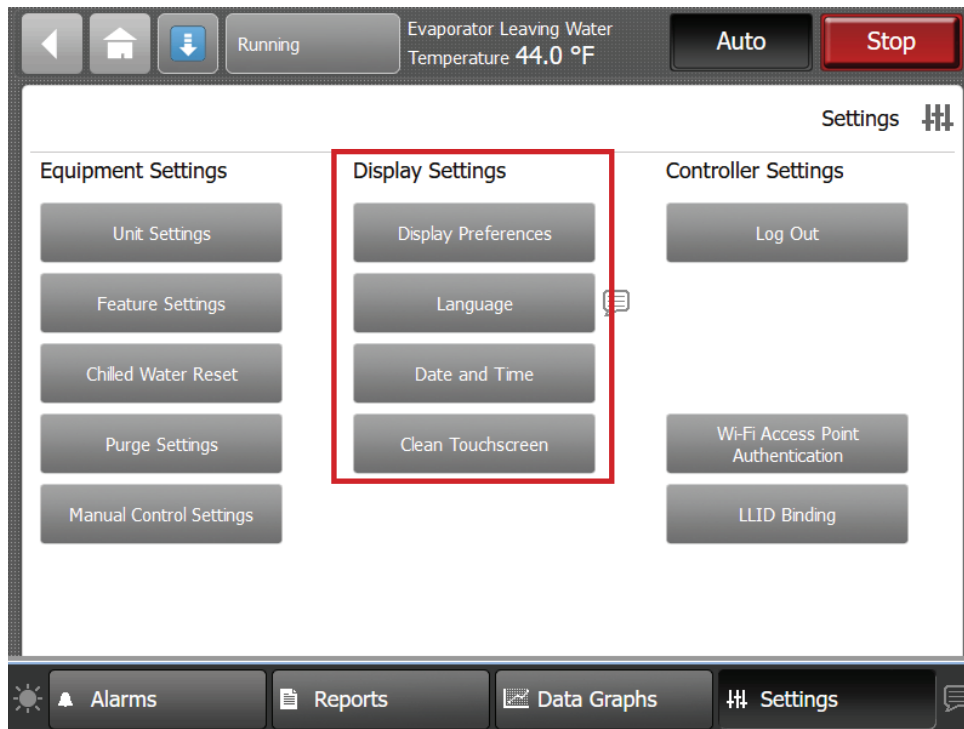
Settings Screen

Touch the **Settings** button in the main menu area to view the Settings screen. *Display Settings* identifies a column of buttons located on the screen as shown in the following figure. The buttons are:

- Display Preferences
- Language
- Date and Time
- Clean Touchscreen

Each button provides access to a screen that is related to the button name.

Figure 39. Settings screen with the Display Settings column highlighted

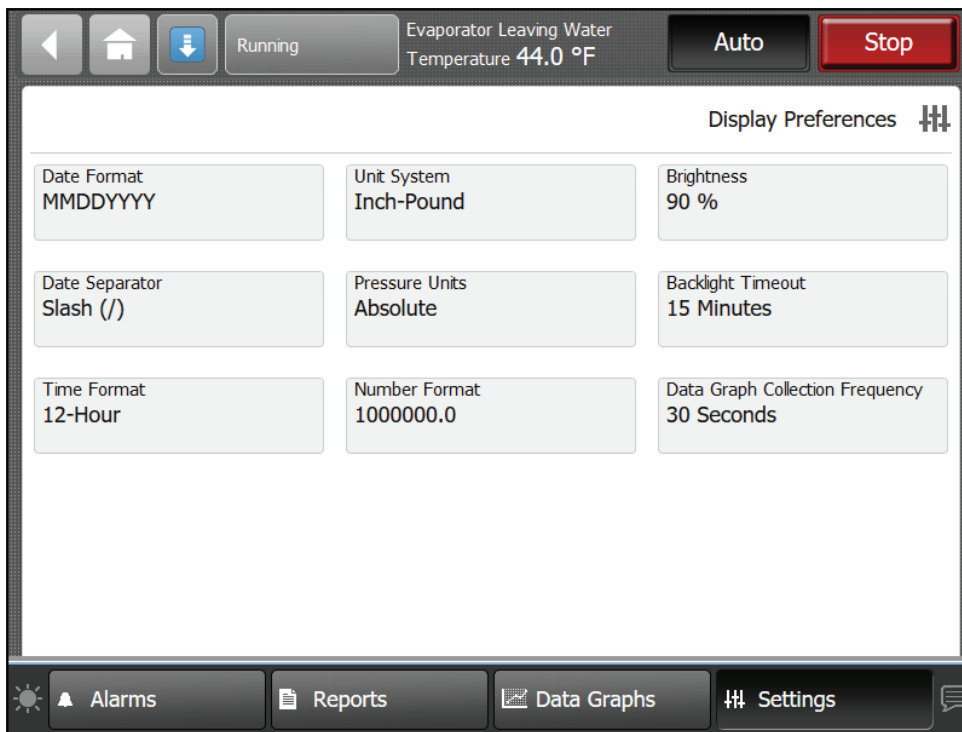


Viewing and Changing Display Preferences

On the Settings screen, touch **Display Preferences** to view a screen containing the following buttons.

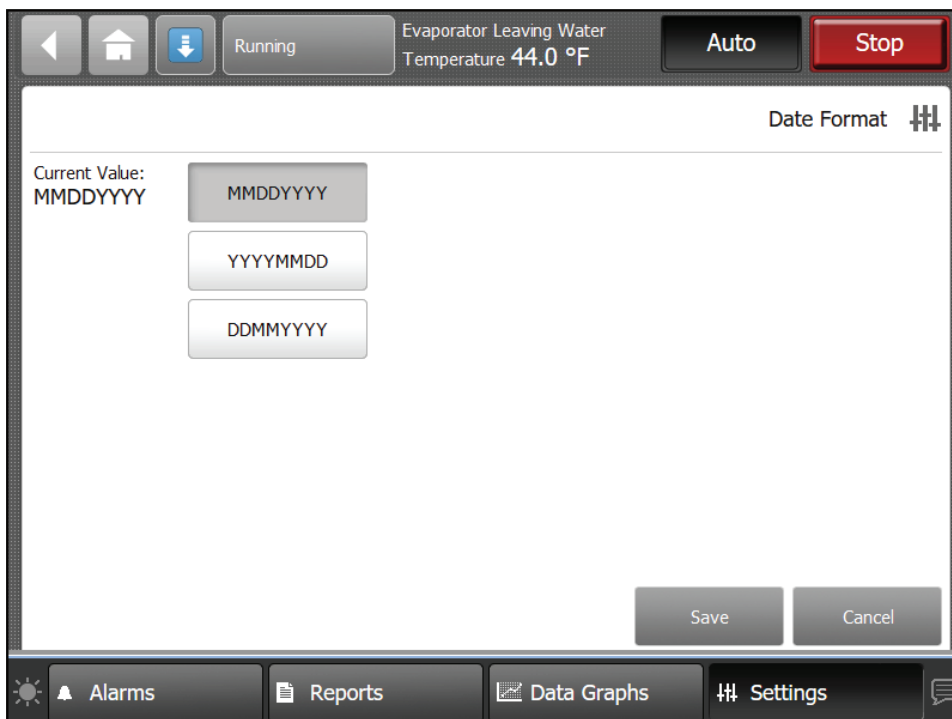
- Date Format
- Date Separator
- Time Format
- Unit System
- Pressure Units
- Number Format
- Brightness
- Backlight Timeout
- Data Graph Collection Frequency

Figure 40. Display Preferences screen



Each of the buttons in the previous figure shows the name of a display preference and its format (current value). Touch any of these buttons to view a screen where you can change the format. (Refer to the following figure for an example.) The button representing the format currently used is shaded (see the “MMDDYYYY” button).

Figure 41. Example of Display Preference screen



To change the format:



Display Settings

1. Touch the button that shows that format you prefer.
2. Touch **Save** to confirm your selection and to return to the Display Preferences screen.

Date Format

Use the Date Format screen to choose from the following date formats:

- MMDDYYYY (default)
- YYYYMMDD
- DDMMYYYY

Date Separator

Use the Date Separator screen to choose from the following date formats:

- None
- Slash (/) (default)
- Hyphen (-)
- Period (.)
- Underscore (_)

Time Format

Use the Time Format screen to choose from the following time formats:

- 12-Hour (default)
- 24-Hour

Unit System

Use the Unit System screen to choose from the following display units:

- SI
- Inch-Pound (default)

Pressure Units

Use the Pressure Units screen to choose from the following pressure units:

- Absolute (default)
- Gauge

Number Format

- 1000000.0 (default)
- 1000000,0

Brightness

Use the numerical keypad on the Brightness screen to change the brightness of the screen. (The default is 90%.)

Backlight Timeout

Use the numerical keypad on the Backlight Timeout screen to change the number of minutes of inactivity that pass until the screen dims. (The default is 15 minutes, and maximum value is 30 minutes.)

Data Graph Collection Frequency

30 seconds (default)

Viewing and Changing the Language Setting

On the Settings screen, touch **Languages** to view a screen containing the following buttons (refer to the following figure):

- Arabic (Gulf Regions)
- Chinese—China
- Chinese—Taiwan
- Czech

- Dutch
- English
- French
- French (Canada)
- German
- Greek
- Hebrew
- Hungarian
- Indonesian
- Italian
- Japanese
- Korean
- Norwegian
- Polish
- Portuguese (Portugal)
- Portuguese (Brazil)
- Russian
- Romanian
- Spanish (Europe)
- Spanish (Latin America)
- Swedish
- Thai
- Turkish

Figure 42. Language screen



1. Touch the button that identifies the language you prefer.
2. Touch **Save** to confirm your selection and to return to the Settings screen.

Viewing and Changing Date and Time Settings

Touch the **Date and Time** button to open the associated screen. To enter a new date, time, or time zone:

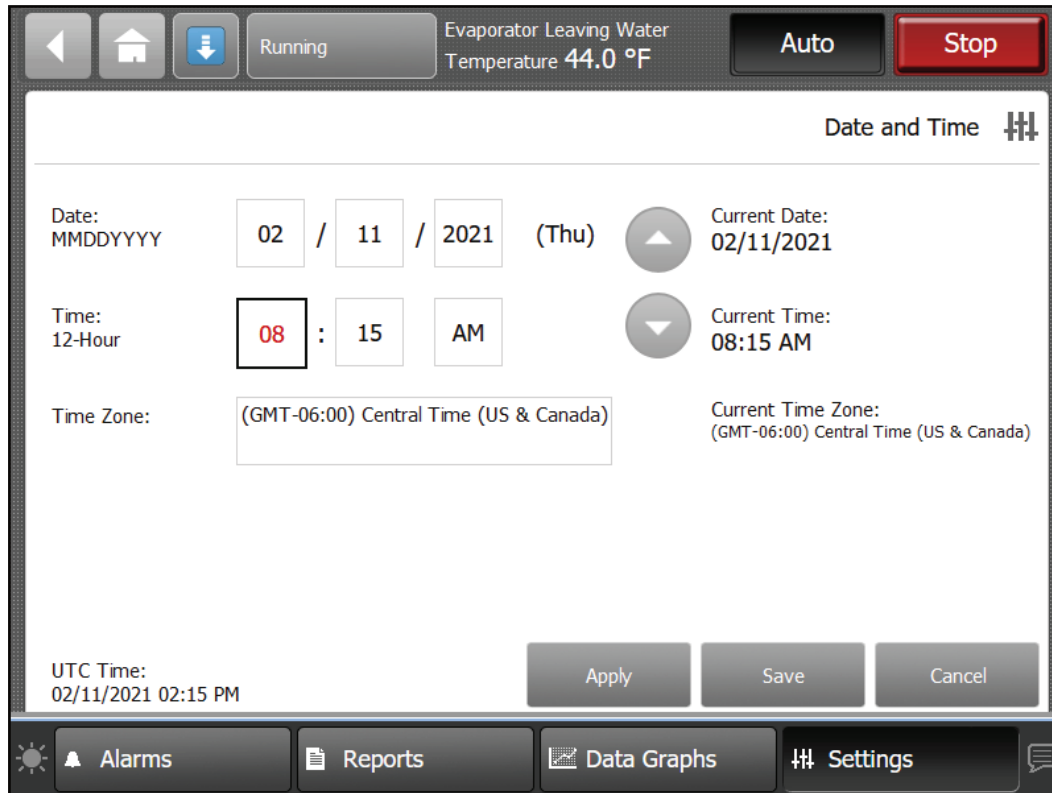
Display Settings

Touch the digit you want to change. When enabled for editing, the digit will appear red with a black border. when finished, touch **Apply** or **Save**.

OR

Tap the digit twice which opens the keypad screen where you can make date and time entries. When finished, touch **Enter**; you will be returned to the Date and Time screen. Touch **Apply** or **Save**.

Figure 43. Date and Time screen



← Home Download Running Evaporator Leaving Water Temperature 44.0 °F Auto Stop

Date and Time

Date: MMDDYYYY 02 / 11 / 2021 (Thu) Current Date: 02/11/2021

Time: 12-Hour 08 : 15 AM Current Time: 08:15 AM

Time Zone: (GMT-06:00) Central Time (US & Canada) Current Time Zone: (GMT-06:00) Central Time (US & Canada)

UTC Time: 02/11/2021 02:15 PM Apply Save Cancel

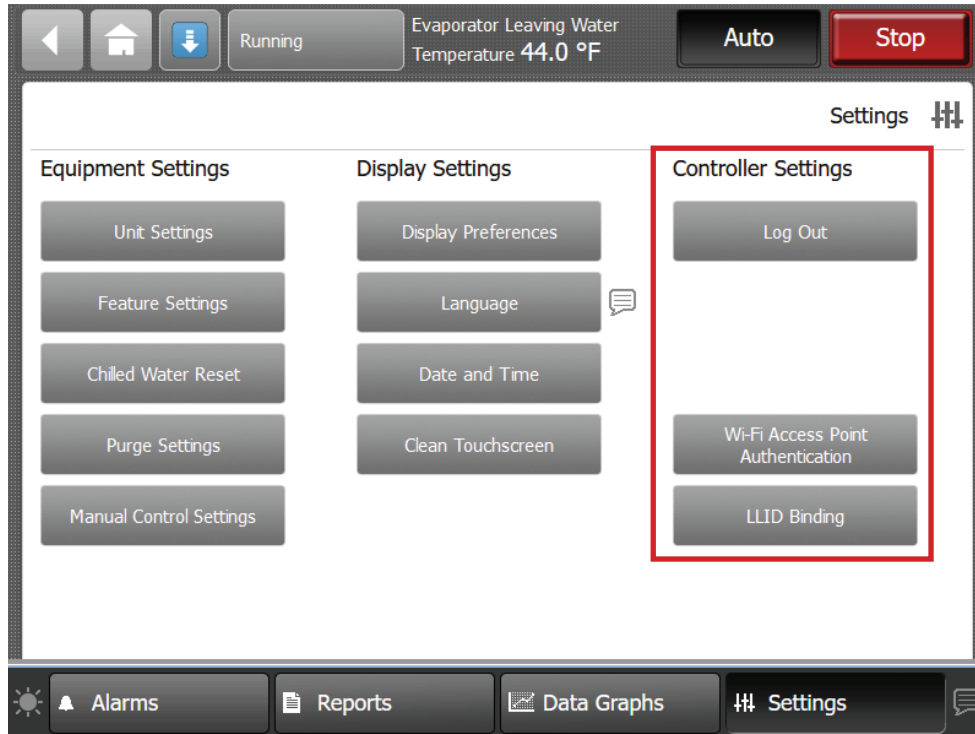
Alarms Reports Data Graphs Settings

Controller Settings

Controller Settings Screen

Touch the **Settings** button in the main menu area to view the Settings screen. *Controller Settings* identifies a column of buttons located on the screen as shown in the following figure.

Figure 44. Equipment Settings screen with the Controller Settings column highlighted



Log In

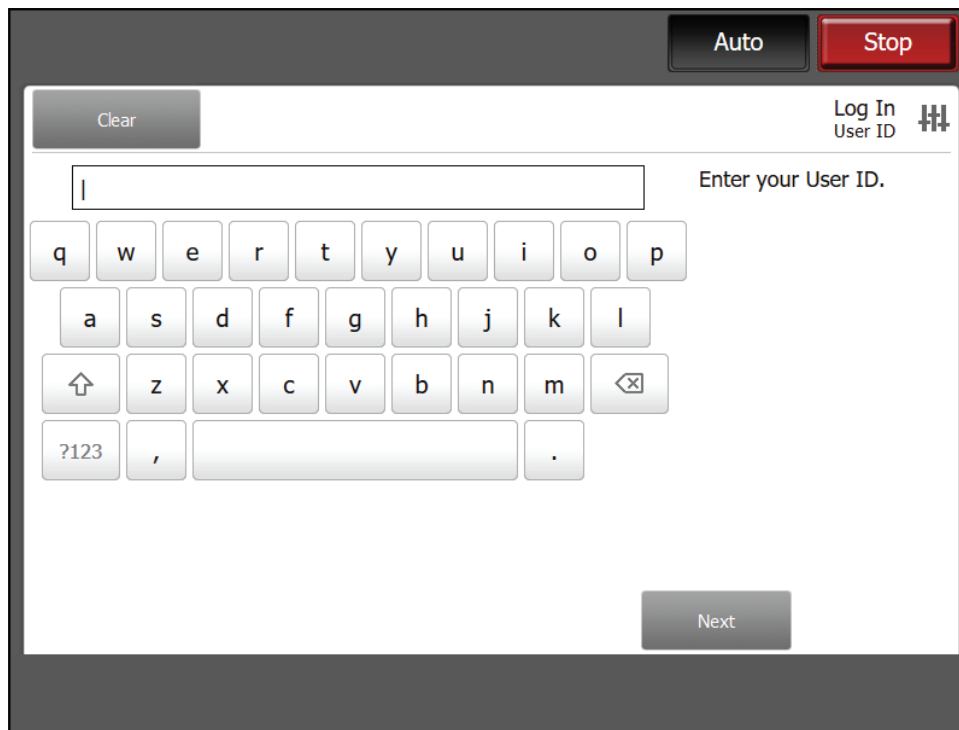
By default, security for the display connection is disabled and the Log In screen is hidden. When security is enabled for the display connection, the display will show the Log In screen. A valid User ID and Password is required to access the status and settings on the display.

Both the User ID and Password screen display the virtual keyboard. The user IDs, passwords, and password complexity are configured by the Symbio™ UI and can't be configured using the display.

Log In — User ID Screen

To Log In enter a valid User ID. Press Next button to complete the User ID entry and navigate to the Password screen. Press the Clear to erase the User ID.

Figure 45. User ID screen



The User ID screen features a dark grey header bar with two buttons: 'Auto' and 'Stop'. Below the header is a white input area. On the left, there is a 'Clear' button. On the right, there is a 'Log In' button with a User ID icon. In the center, there is a text input field with a cursor. To the right of the input field, the text 'Enter your User ID.' is displayed. Below the input field is a virtual keyboard with four rows of buttons: the first row contains letters q, w, e, r, t, y, u, i, o, p; the second row contains a, s, d, f, g, h, j, k, l; the third row contains an arrow up, z, x, c, v, b, n, m, and a delete icon; the fourth row contains a numbers/underscore button, a comma/semicolon button, an empty space button, and a period/apostrophe button. At the bottom right of the white area is a 'Next' button.

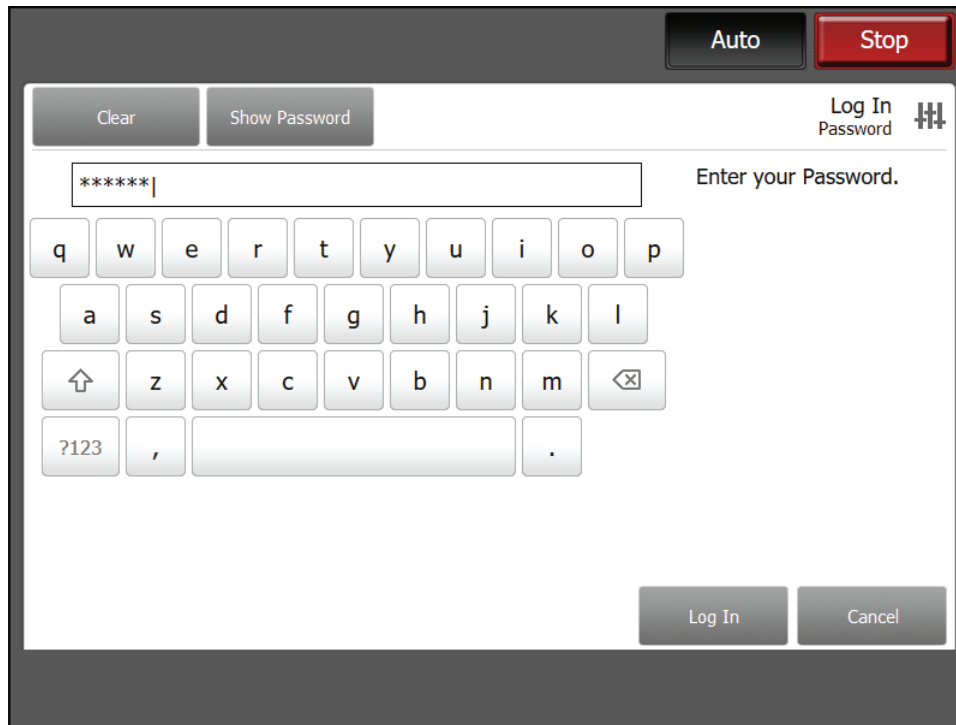
Log In — Password Screen

Enter a valid User ID and Password to unlock the display. Press Log In to complete the Password entry.

- Press **Show Password** to make the characters entered visible
- Press **Hide Password** to display characters as an asterisks (*).
- Press **Cancel** to return to the User ID screen.
- Press **Clear** to erase the Password.

Entering a valid combination of User ID and Password the display will navigate to the home page. Entering an invalid combination of User ID and password causes the display to show the error message **“The User ID and/or Password is not valid.”** and the display will remain on the Password Screen.

Figure 46. Password screen



The password screen features a dark grey header with 'Auto' and 'Stop' buttons. Below this is a 'Clear' button and a 'Show Password' button. A password input field displays '*****'. To the right of the input field is the text 'Enter your Password.' and a 'Log In Password' button with a keyboard icon. Below the input field is a virtual keyboard with the following layout:

q	w	e	r	t	y	u	i	o	p
a	s	d	f	g	h	j	k	l	
↑	z	x	c	v	b	n	m	↵	
?123	,							.	

At the bottom right, there are 'Log In' and 'Cancel' buttons.

Log Out

This button logs out the current user. Users are automatically logged out when the backlight times out, unless the Auto Logoff feature is disabled for that user. The button is only displayed when Security is enabled via Symbio™ UI.

Wi-Fi Access Point Authentication

This button allows the user to temporarily disable Wi-Fi authentication and connect to the Symbio™ 800 controller without providing a user id and password.

LLID Binding

LLID binding screen provides the capability to bind and unbind LLIDs, similar to Tracer® TU.

Important: LLID binding screen should *ONLY* be used by experienced service personnel.

◀

Running

Evaporator Leaving Water Temperature **44.0 °F**

Auto
Stop

Rebuild
All LEDs On

LLID Binding
● 2
■ 30
✕ 3
▲ 1

!	#	LLID Name	LLID Type	
●	3	Evaporator Entering Water Temperature Sensor	Temperature Sensor	Unbind
●	4	Evaporator Leaving Water Temperature Sensor	Temperature Sensor	Unbind
▲	7	Electronic Expansion Valve, Circuit 1	Electronic Expansion Valve	Bind
✕	2	Extra Device	Generic LLID	Unbind
✕	5	Extra Device	Generic LLID	Unbind
✕	6	Extra Device	Temperature Sensor	Unbind

Page 1 of 6

Alarms
 Reports
 Data Graphs
 Settings



Troubleshooting

The following table contains information to help troubleshoot the Tracer® AdaptiView™ displays.

Table 12. Common error messages with possible causes and solutions

Issue — Error Message Text	Possible Causes/Solutions
Symbio™ 800 Configuration is Invalid	Configuration on the controller is invalid. Symbio 800 configuration must be updated with Tracer® TU service tool.
Communication Lost	Communications were established with the controller, but since have been lost. Try the following: • Check power and communications cables between Symbio 800 and display. • Touch Restart. • Update the Symbio 800 software with the service tool.
Display Failed to Establish Communication	Communications were never established with the controller. Check power and communication cables. The display will try to establish communication: <i>X (countdown timer in seconds)</i>
File Not Found	Files missing from the file systemUpdate the Symbio 800 software with the service tool.
Confirm Restart of Display	To optimize performance, the display will restart: <i>X (countdown timer in seconds)</i> • Touch Yes to restart immediately. • Touch No to delay restart for 24 hours.
The display is about to restart	The display needs to restart due to a controller reset. A 10 second countdown will occur before restart. Touch Yes to restart immediately. <i>X (countdown timer in seconds)</i>
Updating Data	The Symbio 800 Registry revision number increments, the point data needs to be reinitialized, or the Backlight Timeout activates.The display is unavailable while updating data.



Appendix: Chiller Data

The following lists contain all of the data available for viewing on a Tracer® AdaptiView™ display that is connected to the chiller.

Subcomponent Screen Data

Chiller configuration determines which of the following settings and status points appear on the display.

Table 13. Evaporator data

Active Chilled Water Setpoint XXX.X °F/C	Evaporator Entering Water Temperature XXX.X °F/C	Evaporator Leaving Water Temperature XXX.X °F/C
Evaporator Water Pump Override Auto/On	Evaporator Water Flow Status Flow/No Flow	Evaporator Approach Temperature XX.X °F/C
Evaporator Saturated Rfgt Temp XXX.X °F/C	Evaporator Refrigerant Pressure XXX.X PSI/kPa	—
Approximate Evaporator Water Flow XXX.X gpm/lpm	Evaporator Differential Water Pressure XXX.XX PSID/kPaD	Calculated Chiller Capacity XXX.X tons/kW
Evaporator Entering Water Pressure XXX.X PSI/kPa	Evaporator Leaving Water Pressure XXX.X PSI/kPa	—

Table 14. Condenser data

Active Hot Water Setpoint XXX.X °F/C	Condenser Entering Water Temperature XXX.X °F/C	Condenser Leaving Water Temperature XXX.X °F/C
Condenser Water Pump Override Auto/On	Condenser Water Flow Status Flow/No Flow	Condenser Approach Temperature XX.X °F/C
Condenser Saturated Rfgt Temp XXX.X °F/C	Condenser Refrigerant Pressure XXX.X PSI/kPa	Differential Refrigerant Pressure XXX.XX PSID/kPaD
Approximate Condenser Water Flow XXX.X gpm/lpm	Condenser Differential Water Pressure XXX.XX PSID/kPaD	Head Pressure Control Command XXX.X%
Condenser Entering Water Pressure XXX.X PSI/kPa	Condenser Leaving Water Pressure XXX.X PSI/kPa	—
Outdoor Air Temperature XXX.X °F/C	Refrigerant Monitor XXX ppm	—
Condenser Refrigerant Liquid Level XX.XX in/mm	Condenser Rfgt Valve Percent Open XXX.X% OR Economizer Bypass Valve Position XXX.X%	Economizer Rfgt Valve Percent Open XXX.X%
Heat Recovery Entering Water Temp XXX.X °F/C	Heat Recovery Leaving Water Temp XXX.X °F/C	Heat Recovery Approach Temperature XXX.X °F/C
Heat Recovery Water Flow Status Flow/No Flow	Approximate Heat Recovery Water Flow XXXX.X gpm/lpm	—
Heat Recovery Diff Water Pressure XXX.XX PSID/kPaD	Calculated Heat Recovery Capacity XXXXXXX BTU/hr/kW	—
Heat Recovery Entering Water Pressure XXX.X PSI/kPa	Heat Recovery Leaving Water Pressure XXX.X PSI/kPa	—

Table 15. Compressor data

Compressor Running Status Running/Stopped	Chiller Load Command XXX.X %	Oil Pump Override or Lube Pump Override Auto/Manual
Average Motor Current % RLA XXX.X %	Compressor Starts XXXX	Oil Pump Command On/Off
Oil Differential Pressure XXX.XX PSID/kPaD	Compressor Running Time XX:XX Hr:Min	Compressor Discharge Temperature XXX.X °F/C

Table 15. Compressor data (continued)

Oil Differential Pressure Switch Flow/No Flow	Oil Pump Discharge Pressure XX.X PSI/kPa	Oil Tank Pressure XX.X PSI/kPa
Lube Differential Pressure XX.XX PSID/kPaD	Lube Pump Discharge Pressure XX.X PSI/kPa	Condenser Refrigerant Pressure XXX.X PSI/kPa
Lube Pump Suction Pressure XX.X PSI/kPa	—	—
Lube Pump Command On/Off	Lube Flow First Stage Bearing X.X gpm/lpm	Lube Flow Second Stage Bearing X.X gpm/lpm
Oil Tank Temperature XXX.X °F/C	Inboard Bearing Temperature XXX.X °F/C	Outboard Bearing Temperature XXX.X °F/C
Outboard Bearing Pad Temperature 1 XXX.X °F/C	Outboard Bearing Pad Temperature 2 XXX.X °F/C	Outboard Bearing Pad Temperature 3 XXX.X °F/C
IGV 1 Percent Open XXX.X %	IGV 1 Position Steps XXXXX	Economizer Refrigerant Pressure XX.X PSI/kPa
IGV 2 Percent Open XXX.X %	IGV 2 Position Steps XXXXX	Hot Gas Bypass Total Time XXX:XX Hr:Min

Table 16. Motor data

Active Demand Limit Setpoint XXX.X %	Average Motor Current % RLA XXX.X %	Chiller Load Command XXX.X%
AFD Percent Speed XXX.X%	AFD Calculated Motor Voltage XXXX.X V	—
Starter Motor Current L1 % RLA XXX.X% OR AFD Motor Current U % RLA XXX.X%	Starter Motor Current L2 % RLA XXX.X% OR AFD Motor Current V % RLA XXX.X%	Starter Motor Current L3 % RLA XXX.X% OR AFD Motor Current W % RLA XXX.X%
Starter Motor Current L1 XXX.X A OR AFD Motor Current U XXX.X A OR Average Motor Current XXX.X A	Starter Motor Current L2 XXX.X A OR AFD Motor Current V XXX.X A	Starter Motor Current L3 XXX.X A OR AFD Motor Current W XXX.X A
AFD Input Current L1 XXX.X A	AFD Input Current L2 XXX.X A	AFD Input Current L3 XXX.X A
AFD Average Motor Voltage XXXX.X V	AFD Calculated Input Voltage XXXX.X V OR AFD Average Input Voltage XXXX.X V	Motor Frequency XX.X Hz
Speed Command XXX.X %	Motor Speed XXXX rpm	Frequency Command XX.X Hz
Starter Input Voltage AB XXXX.X V OR AFD Motor Voltage UV XXXX.X V	Starter Input Voltage BC XXXX.X V OR AFD Motor Voltage VW XXXX.X V	Starter Input Voltage CA XXXX.X V OR AFD Motor Voltage WU XXXX.X V
Motor Winding Temperature 1 XXX.X °F/C	Motor Winding Temperature 2 XXX.X °F/C	Motor Winding Temperature 3 XXX.X °F/C
Motor Temperature XXX.X °F/C	MTC Switch Open/Closed	Motor Coolant Temperature XXX.X °F/C
AFD Transistor Temperature XXX.X °F/C	AFD Heatsink Temperature XXX.X °F/C	AFD Input Frequency XX.X Hz
AFD DC Bus Voltage XXX.X V	AFD DC Bus Current XXXX.X A	AFD Total Demand Distortion XXX.X %

Appendix: Chiller Data

Table 16. Motor data (continued)

AFD Output Power XXX.X kW	AFD Average Input Current XXX.X A	Starter Motor Power Factor X.XX
Energy Consumption Last Reset MM/DD/YYYY HH:MM AM/PM	Energy Consumption Resettable XXXX kWh	Energy Consumption NonReset XXXX kWh
Unit Power Consumption XXX.X kW	Chiller Power Demand XXX.X kW	Unit Power Factor XX.XX
Unit Line Frequency XX.X Hz	Meter Average Line Current XXX.X A	Meter Average Line Voltage XXXX.X V
Meter Line Current L1 XXX.X A	Meter Line Current L2 XXX.X A	Meter Line Current L3 XXX.X A
Meter Line Voltage L1–L2 XXX.X V	Meter Line Voltage L2–L3 XXX.X V	Meter Line Voltage L1–L3 XXX.X V

Table 17. Purge data

Purge Top Level Mode Adaptive/Stopped/etc.	Purge Regen Cycle Auto/On	—
Daily Pumpout 24 Hours XX:XX Min:Sec	Average Daily Pumpout 7 Days XX:XX Min:Sec	Daily Pumpout Limit XX Min
Chiller On 7 Days XXX.X %	Pumpout Chiller On 7 Days XXX.X %	Pumpout Chiller Off 7 Days XXX.X %
Time Until Next Purge Run XX:XX Min:Sec	Purge Rfgt Compressor Suction Temp XXX.X °F/C	Purge Liquid Temperature XXX.X °F/C
Pumpout Life XX:XX Min:Sec	Purge Carbon Tank Temperature XXX.X °F/C	—

Reports

Table 18. Log sheet

Evaporator		
Active Chilled Water Setpoint XXX.X °F/C	Evaporator Entering Water Temperature XXX.X °F/C	Evaporator Leaving Water Temperature XXX.X °F/C
Evaporator Approach Temperature XX.X °F/C	Evaporator Saturated Rfgt Temp XXX.X °F/C	Evaporator Refrigerant Pressure XXX.X PSI/kPa
Evaporator Water Flow Status Flow/No Flow	Approximate Evaporator Water Flow XXX.X gpm/lpm	Evaporator Water Pump Override Auto/On
Evaporator Differential Water Pressure XXX.XX PSID/kPaD	—	—
Condenser		
Active Hot Water Setpoint XXX.X °F/C	Condenser Entering Water Temperature XXX.X °F/C	Condenser Leaving Water Temperature XXX.X °F/C
Condenser Approach Temperature XX.X °F/C	Condenser Saturated Rfgt Temp XXX.X °F/C	Condenser Refrigerant Pressure XXX.X PSI/kPa
Condenser Approach Temperature XX.X °F/C	Condenser Saturated Rfgt Temp XXX.X °F/C	Condenser Refrigerant Pressure XXX.X PSI/kPa
Condenser Differential Water Pressure XXX.XX PSID/kPaD	Differential Refrigerant Pressure XXX.XX PSID/kPaD	Condenser Refrigerant Liquid Level XX.XX in/mm
Compressor		
Compressor Running Status Running/Stopped	Compressor Starts XXXX	Compressor Running Time XX:XX Hr:Min

Table 18. Log sheet (continued)

Oil Pump Discharge Pressure or Lube Pump Discharge Pressure XX.X PSI/kPa	Oil Tank Pressure or Condenser Refrigerant Pressure XX.X PSI/kPa	Oil Differential Pressure or Lube Differential Pressure XXX.XX PSID/kPaD
Oil Tank Temperature XXX.X °F/C	Lube Pump Suction Pressure XX.X PSI/kPa	Oil Differential Pressure Switch Flow/No Flow
IGV 1 Percent Open XXX.X %	IGV 2 Percent Open XXX.X %	—
Outboard Bearing Pad Temperature 1 XXX.X °F/C	Outboard Bearing Pad Temperature 2 XXX.X °F/C	Outboard Bearing Pad Temperature 3 XXX.X °F/C
Motor		
Active Demand Limit Setpoint XXX.X %	Average Motor Current % RLA XXX.X %	Chiller Load Command XXX.X%
AFD Percent Speed XXX.X%	AFD Calculated Motor Voltage XXXX.X V	—
Starter Motor Current L1 % RLA XXX.X%	Starter Motor Current L2 % RLA XXX.X%	Starter Motor Current L3 % RLA XXX.X%
Starter Motor Current L1 % RLA XXX.X% OR AFD Motor Current U % RLA XXX.X%	Starter Motor Current L2 % RLA XXX.X% OR AFD Motor Current V % RLA XXX.X%	Starter Motor Current L3 % RLA XXX.X% OR AFD Motor Current W % RLA XXX.X%
Starter Motor Current L1 XXX.X A OR AFD Motor Current U XXX.X A OR Average Motor Current XXX.X A	Starter Motor Current L2 XXX.X A OR AFD Motor Current V XXX.X A	Starter Motor Current L3 XXX.X A OR AFD Motor Current W XXX.X A
Starter Input Voltage AB XXXX.X V	Starter Input Voltage BC XXXX.X V	Starter Input Voltage CA XXXX.X V
AFD Motor Voltage UV XXXX.X V	AFD Motor Voltage VW XXXX.X V	AFD Motor Voltage WU XXXX.X V
Unit Power Consumption XXX.X kW	Chiller Power Demand XXX.X kW	Starter Motor Power Factor X.XX
Motor Winding Temperature 1 XXX.X °F/C	Motor Winding Temperature 2 XXX.X °F/C	Motor Winding Temperature 3 XXX.X °F/C
Motor Temperature XXX.X °F/C	MTC Switch Open/Closed	Motor Coolant Temperature XXX.X °F/C
Speed Command XXX.X %	Motor Speed XXXX rpm	Motor Frequency or Frequency Command XX.X Hz
AFD Transistor Temperature XXX.X °F/C	AFD Heatsink Temperature XXX.X °F/C	—
Purge		
Daily Pumpout 24 Hours XX:XX Min:Sec	Average Daily Pumpout 7 Days XX:XX Min:Sec	Daily Pumpout Limit XX Min
Chiller On 7 Days XXX.X %	Pumpout Chiller On 7 Days XXX.X %	Pumpout Chiller Off 7 Days XXX.X %
Time Until Next Purge Run XX:XX Min:Sec	Purge Rfgt Compressor Suction Temp XXX.X °F/C	Purge Liquid Temperature XXX.X °F/C
Pumpout Life XX:XX Min:Sec	Purge Carbon Tank Temperature XXX.X °F/C	—



Appendix: Chiller Data

Table 19. ASHRAE Report data

Current Date/Time MM/DD/YYYY HH:MM AM/PM	Top Level Mode Running/Stopped/etc.	Active Chilled Water Setpoint XXX.X °F/C
Evaporator Entering Water Temperature XXX.X °F/C	Evaporator Leaving Water Temperature XXX.X °F/C	Evaporator Water Flow Status Flow/No Flow
Condenser Entering Water Temperature XXX.X °F/C	Condenser Leaving Water Temperature XXX.X °F/C	Condenser Water Flow Status Flow/No Flow
Refrigerant Type XXXXX	Refrigerant Monitor XXX ppm	Active Hot Water Setpoint XXX.X °F/C
Evaporator Approach Temperature XX.X °F/C	Evaporator Saturated Rfgt Temp XXX.X °F/C	Evaporator Refrigerant Pressure XXX.X PSI/kPa
Condenser Approach Temperature XX.X °F/C	Condenser Saturated Rfgt Temp XXX.X °F/C	Condenser Refrigerant Pressure XXX.X PSI/kPa
Approximate Evaporator Water Flow XXX.X gpm/lpm	Evaporator Differential Water Pressure XXX.XX PSID/kPaD	Calculated Chiller Capacity XXX.X tons/kW
Approximate Condenser Water Flow XXX.X gpm/lpm	Condenser Differential Water Pressure XXX.XX PSID/kPaD	—
Active Demand Limit Setpoint XXX.X %	AFD Average Motor Current % RLA XXX.X %	AFD Calculated Motor Voltage XXXX.X V
Starter Motor Current L1 or AFD Motor Current U XXX.X A or Average Motor Current XXX.X A	Starter Motor Current L2 or AFD Motor Current V XXX.X A	Starter Motor Current L3 or AFD Motor Current W XXX.X A
Starter Motor Voltage AB or AFD Motor Voltage UV XXX.X V	Starter Motor Voltage BC or AFD Motor Voltage VW XXX.X V	Starter Motor Voltage CA or AFD Motor Voltage WU XXX.X V
Compressor Running Status Running/Stopped	Compressor Starts XXXX	Compressor Running Time XX:XX Hr:Min
Oil Pump Discharge Pressure or Lube Pump Discharge Pressure XX.X PSI/kPa	Oil Tank Pressure or Condenser Refrigerant Pressure XX.X PSI/kPa	Oil Differential Pressure or Lube Differential Pressure XX.X PSID/kPaD
Oil Tank Temperature XXX.X °F/C	Lube Pump Suction Pressure XX.X PSI/kPa	Oil Differential Pressure Switch Flow/No Flow
Compressor Discharge Temperature XXX.X °F/C	Inboard Bearing Temperature XXX.X °F/C	Outboard Bearing Temperature XXX.X °F/C
Purge Top Level Mode Adaptive/Stopped/etc.	Daily Pumpout 24 Hours XX:XX Min:Sec	Pumpout Life XX:XX Min:Sec
Heat Recovery Entering Water Temp XXX.X °F/C	Heat Recovery Leaving Water Temp XXX.X °F/C	Heat Recovery Water Flow Status Flow/No Flow
Approximate Heat Recovery Water Flow XXXXX.X gpm/lpm	Heat Recovery Diff Water Pressure XXX.XX PSID/kPaD	Calculated Heat Recovery Capacity XXXXXXX BTU/hr/kW

Table 20. Items available to include in Custom Reports

Unit	Evaporator	Condenser
• Top Level Mode • Refrigerant Type • Refrigerant Monitor • Calculated Chiller Capacity • Chiller Load Command • Active Chiller Mode Command • Ice Building Active • Free Cooling Active • Base Loading Active • Hot Gas Bypass Active • Active Hot Water Command • Active Chilled Water Setpoint • External Chilled Water Setpoint • Active Hot Water Setpoint • External Hot Water Setpoint • Active Demand Limit Setpoint • External Demand Limit Setpoint • Active Base Loading Setpoint • External Base Loading Setpoint • Actual Degrees of Chilled Water Reset	• Evaporator Water Flow Status • Evaporator Entering Water Temperature • Evaporator Leaving Water Temperature • Evaporator Approach Temperature • Evaporator Saturated Rfgt Temp • Evaporator Refrigerant Pressure • Approximate Evaporator Water Flow • Evaporator Differential Water Pressure • Evaporator Entering Water Pressure • Evaporator Leaving Water Pressure • Evaporator Water Pump Command • Evaporator Water Pump Override • Evaporator Pump Override Time Remaining	• Condenser Water Flow Status • Condenser Entering Water Temperature • Condenser Leaving Water Temperature • Outdoor Air Temperature • Condenser Approach Temperature • Condenser Saturated Rfgt Temp • Condenser Refrigerant Pressure • Approximate Condenser Water Flow • Condenser Differential Water Pressure • Condenser Entering Water Pressure • Condenser Leaving Water Pressure • Heat Recovery Entering Water Temp • Heat Recovery Leaving Water Temp • Heat Recovery Approach Temperature • Heat Recovery Water Flow Status • Approximate Heat Recovery Water Flow • Heat Recovery Diff Water Pressure • Heat Recovery Entering Water Pressure • Heat Recovery Leaving Water Pressure • Calculated Heat Recovery Capacity • Condenser Water Pump Command • Condenser Water Pump Override • Condenser Pump Override Time Remaining • Differential Refrigerant Pressure • Head Pressure Control Command • Condenser Refrigerant Liquid Level • Condenser Rfgt Valve Percent Open • Economizer Rfgt Valve Percent Open • Economizer Bypass Valve Position
Compressor		Purge
• Compressor Running Status • Compressor Running Time • Compressor Starts • Compressor Discharge Temperature • Hot Gas Bypass Total Time • IGV 1 Percent Open • IGV 1 Position Steps • IGV 2 Percent Open • IGV 2 Position Steps • Oil Tank Pressure • Oil Differential Pressure • Oil Differential Pressure Switch • Oil Heater Command • Oil Heater Command 4E1 • Oil Heater Command 4E2 • Oil Pump Override • Oil Pump Override Time Remaining • Oil Pump Command • Oil Pump Discharge Pressure	• Lube Differential Pressure • Lube Pump Override • Lube Pump Override Time Remaining • Lube Pump Command • Lube Pump Discharge Pressure • Lube Pump Suction Pressure • Oil Tank Temperature • Lube Flow First Stage Bearing • Lube Flow Second Stage Bearing • Inboard Bearing Temperature • Outboard Bearing Temperature • Outboard Bearing Pad Temperature 1 • Outboard Bearing Pad Temperature 2 • Outboard Bearing Pad Temperature 3 • Compressor Vibration • Economizer Refrigerant Pressure • Air Run - Run Time Remaining • Air Run - Restart Wait Time Remaining • Air Run Time Delay Remaining	• Purge Top Level Mode • Daily Pumpout 24 Hours • Average Daily Pumpout 7 Days • Chiller On 7 Days • Pumpout Chiller On 7 Days • Pumpout Chiller Off 7 Days • Pumpout Life • Purge Carbon Regen Cycles • Purge Carbon Tank Temperature • Purge Liquid Temperature • Purge Rfgt Compressor Suction Temp • Time at Last Regeneration • Time Until Next Purge Run • Purge Refrigeration Circuit Override Time

Appendix: Chiller Data

Table 20. Items available to include in Custom Reports (continued)

Motor		
- Energy Consumption Last Reset - Energy Consumption Resettable - Energy Consumption NonReset - Unit Power Consumption - Chiller Power Demand - Unit Power Factor - Unit Line Frequency - Meter Average Line Current - Meter Line Current L1 - Meter Line Current L2 - Meter Line Current L3 - Meter Average Line Voltage - Meter Line Voltage L1–L2 - Meter Line Voltage L2–L3 - Meter Line Voltage L1–L3 - Starter Motor Power Factor - Motor Speed - Motor Frequency - AFD Percent Speed - Speed Command - Speed Command RPM - Frequency Command - Speed Signal - Average Motor Current % RLA - Average Motor Current - Electro-Mech. Phase Unbalance - Motor Coolant Temperature	- MTC Switch - Restart Inhibit Time - Starter Average Phase Voltage - Starter Motor Current L1 % RLA - Starter Motor Current L2 % RLA - Starter Motor Current L3 % RLA - Starter Motor Current L1 - Starter Motor Current L2 - Starter Motor Current L3 - Starter Input Voltage AB - Starter Input Voltage BC - Starter Input Voltage CA - Motor Winding Temperature 1 - Motor Winding Temperature 2 - Motor Winding Temperature 3 - Motor Temperature - AFD Average Motor Input Current - AFD Input Current L1 - AFD Input Current L2 - AFD Input Current L3 - AFD Input Frequency	- AFD Average Motor Voltage - AFD DC Bus Voltage - AFD DC Bus Current - AFD Output Power - AFD Ground Current - AFD Inverter Base Temperature - AFD Rectifier Base Temperature - AFD Transistor Temperature - AFD Heatsink Temperature - AFD Motor Current U % RLA - AFD Motor Current V % RLA - AFD Motor Current W % RLA - AFD Motor Current U - AFD Motor Current V - AFD Motor Current W - AFD Calculated Motor Voltage - AFD Motor Voltage UV - AFD Motor Voltage VW - AFD Motor Voltage WU - AFD Calculated Input Voltage - AFD Average Input Voltage - AFD Inverter Module Temp U - AFD Inverter Module Temp V - AFD Inverter Module Temp W - AFD Total Demand Distortion

Data Graphs Data Points

Standard Graphs

Table 21. Unit overview 1

Graph Item	Axis	Color
Active Chilled Water Setpoint	Left	Black
Evaporator Leaving Water Temperature	Left	Blue
Evaporator Entering Water Temperature	Left	Green
Active Hot Water Setpoint	Left	Pink
Condenser Leaving Water Temperature	Left	Purple
Condenser Entering Water Temperature	Left	Red
Calculated Chiller Capacity	Right	Yellow

Table 22. Unit overview 2

Graph Item	Axis	Color
Chiller Load Command	Left	Pink
Average Motor Current % RLA	Left	Red
Motor Frequency	Left	Yellow
Oil Differential Pressure	Left	Blue
Frequency Command	Left	Black

Table 22. Unit overview 2 (continued)

Graph Item	Axis	Color
Lube Differential Pressure	Left	Purple
Speed Command	Right	Green

Table 23. Evaporator

Graph Item	Axis	Color
Active Chilled Water Setpoint	Left	Black
Evaporator Leaving Water Temperature	Left	Blue
Evaporator Entering Water Temperature	Left	Green
Evaporator Saturated Rfgt Temp	Left	Yellow
Approximate Evaporator Water Flow	Right	Purple

Table 24. Condenser

Graph Item	Axis	Color
Active Hot Water Setpoint	Left	Pink
Condenser Leaving Water Temperature	Left	Purple
Condenser Entering Water Temperature	Left	Red
Condenser Saturated Rfgt Temp	Left	Yellow
Approximate Condenser Water Flow	Right	Green

Table 25. Compressor

Graph Item	Axis	Color
Average Motor Current % RLA	Left	Red
Active Demand Limit Setpoint	Left	Black
Motor Frequency	Left	Yellow
Frequency Command	Left	Yellow
IGV 1 Percent Open	Left	Purple
Chiller Load Command	Left	Pink
Compressor Discharge Temperature	Left	Blue
AFD Percent Speed	Left	Green
Speed Command	Left	Gray

Table 26. Motor

Graph Item	Axis	Color
Average Motor Current % RLA	Left	Red
Starter Motor Current L1 % RLA	Left	Pink
Starter Motor Current L2 % RLA	Left	Yellow
Starter Motor Current L3 % RLA	Left	Blue
Starter Input Voltage AB	Right	Green
Starter Input Voltage BC	Right	Black



Appendix: Chiller Data

Table 26. Motor (continued)

Graph Item	Axis	Color
Starter Input Voltage CA	Right	Purple
AFD Motor Current U % RLA	Left	Pink
AFD Motor Current V % RLA	Left	Yellow
AFD Motor Current W % RLA	Left	Blue
AFD Motor Voltage UV	Right	Green
AFD Motor Voltage VW	Right	Black
AFD Motor Voltage WU	Right	Purple

Table 27. Approach temperature

Graph Item	Axis	Color
Evaporator Approach Temperature	Left	Pink
Condenser Approach Temperature	Left	Blue
Approximate Evaporator Water Flow	Right	Purple
Approximate Condenser Water Flow	Right	Green
Average Motor Current % RLA	Right	Red

Table 28. Motor temperature

Graph Item	Axis	Color
Motor Winding Temperature 1	Left	Pink
Motor Winding Temperature 2	Left	Red
Motor Winding Temperature 3	Left	Blue
Motor Temperature	Left	Yellow
Motor Coolant Temperature	Left	Black
AFD Transistor Temperature	Left	Purple
AFD Heatsink Temperature	Left	Gray

Table 29. Purge

Graph Item	Axis	Color
Chiller On 7 Days	Left	Pink
Pumpout Chiller On 7 Days	Left	Red
Pumpout Chiller Off 7 Days	Left	Yellow
Purge Rfgr Compressor Suction Temp	Right	Blue
Purge Liquid Temperature	Right	Black
Purge Carbon Tank Temperature	Right	Green

Table 30. Oil system

Graph Item	Axis	Color
Oil Differential Pressure	Left	Pink
Oil Tank Pressure	Left	Blue

Table 30. Oil system (continued)

Graph Item	Axis	Color
Oil Pump Discharge Pressure	Left	Yellow
Oil Tank Temperature	Right	Green
Outboard Bearing Temperature	Right	Black
Inboard Bearing Temperature	Right	Purple

Table 31. Lube system

Graph Item	Axis	Color
Lube Differential Pressure	Left	Pink
Lube Pump Discharge Pressure	Left	Red
Condenser Refrigerant Pressure	Left	Blue
Lube Pump Suction Pressure	Left	Yellow
Lube Flow First Stage Bearing	Right	Green
Lube Flow Second Stage Bearing	Right	Black

Table 32. Liquid level control

Graph Item	Axis	Color
Condenser Refrigerant Liquid Level	Left	Green
Condenser Rfgt Valve Percent Open	Right	Pink
Economizer Bypass Valve Position	Right	Yellow
Economizer Rfgt Valve Percent Open	Right	Blue



Appendix: Chiller Data

Custom Graphs

Table 33. Items available to include in Custom Graphs

Unit	Evaporator	Purge
- Refrigerant Monitor - Calculated Chiller Capacity - Chiller Load Command - Active Hot Water Command - Active Hot Water Setpoint - Active Demand Limit Setpoint - Active Base Loading Setpoint - Actual Degrees of Chilled Water Reset	- Evaporator Entering Water Temperature - Evaporator Leaving Water Temperature - Evaporator Approach Temperature - Evaporator Saturated Rfgt Temp - Evaporator Refrigerant Pressure - Approximate Evaporator Water Flow - Evaporator Differential Water Pressure - Evaporator Entering Water Pressure - Evaporator Leaving Water Pressure	- Chiller On 7 Days - Pumpout Chiller On 7 Days - Pumpout Chiller Off 7 Days - Purge Carbon Regen Cycles - Purge Liquid Temperature - Purge Rfgt Compressor Suction Temp
Condenser		Compressor
- Condenser Entering Water Temperature - Condenser Leaving Water Temperature - Outdoor Air Temperature - Condenser Approach Temperature - Condenser Saturated Rfgt Temp - Condenser Refrigerant Pressure - Approximate Condenser Water Flow - Condenser Differential Water Pressure - Condenser Entering Water Pressure - Condenser Leaving Water Pressure - Heat Recovery Entering Water Temp - Heat Recovery Leaving Water Temp - Heat Recovery Approach Temperature	- Approximate Heat Recovery Water Flow - Heat Recovery Diff Water Pressure - Heat Recovery Entering Water Pressure - Heat Recovery Leaving Water Pressure - Calculated Heat Recovery Capacity - Differential Refrigerant Pressure - Head Pressure Control Command - Condenser Refrigerant Liquid Level - Condenser Rfgt Valve Percent Open - Economizer Rfgt Valve Percent Open - Economizer Bypass Valve Position	- Compressor Discharge Temperature - IGV 1 Percent Open - IGV 2 Percent Open - Oil Tank Pressure - Oil Differential Pressure - Oil Pump Discharge Pressure - Lube Differential Pressure - Lube Pump Discharge Pressure - Lube Pump Suction Pressure - Oil Tank Temperature - Lube Flow First Stage Bearing - Lube Flow Second Stage Bearing - Inboard Bearing Temperature - Outboard Bearing Temperature - Outboard Bearing Pad Temperature 1 - Outboard Bearing Pad Temperature 2 - Outboard Bearing Pad Temperature 3 - Economizer Refrigerant Pressure - Compressor Vibration
Motor		
- Energy Consumption NonReset - Unit Power Consumption - Chiller Power Demand - Unit Power Factor - Unit Line Frequency - Meter Average Line Current - Meter Line Current L1 - Meter Line Current L2 - Meter Line Current L3 - Meter Average Line Voltage - Meter Line Voltage L1–L2 - Meter Line Voltage L2–L3 - Meter Line Voltage L1–L3 - Starter Motor Power Factor - Motor Speed - Motor Frequency - AFD Percent Speed - Speed Command - Frequency Command - Speed Signal - Average Motor Current % RLA - Average Motor Current - Electro-Mech. Phase Unbalance - Motor Coolant Temperature	- Starter Average Phase Voltage - Starter Motor Current L1 % RLA - Starter Motor Current L2 % RLA - Starter Motor Current L3 % RLA - Starter Motor Current L1 - Starter Motor Current L2 - Starter Motor Current L3 - Starter Input Voltage AB - Starter Input Voltage BC - Starter Input Voltage CA - Motor Winding Temperature 1 - Motor Winding Temperature 2 - Motor Winding Temperature 3 - Motor Temperature - AFD Average Input Current - AFD Input Current L1 - AFD Input Current L2 - AFD Input Current L3 - AFD Input Frequency	- AFD Average Motor Voltage - AFD DC Bus Voltage - AFD DC Bus Current - AFD Output Power - AFD Ground Current - AFD Inverter Base Temperature - AFD Rectifier Base Temperature - AFD Transistor Temperature - AFD Heatsink Temperature - AFD Motor Current U % RLA - AFD Motor Current V % RLA - AFD Motor Current W % RLA - AFD Motor Current U - AFD Motor Current V - AFD Motor Current W - AFD Calculated Motor Voltage - AFD Motor Voltage UV - AFD Motor Voltage VW - AFD Motor Voltage WU - AFD Calculated Input Voltage - AFD Average Input Voltage - AFD Inverter Module Temp U - AFD Inverter Module Temp V - AFD Inverter Module Temp W - AFD Total Demand Distortion

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