User Guide
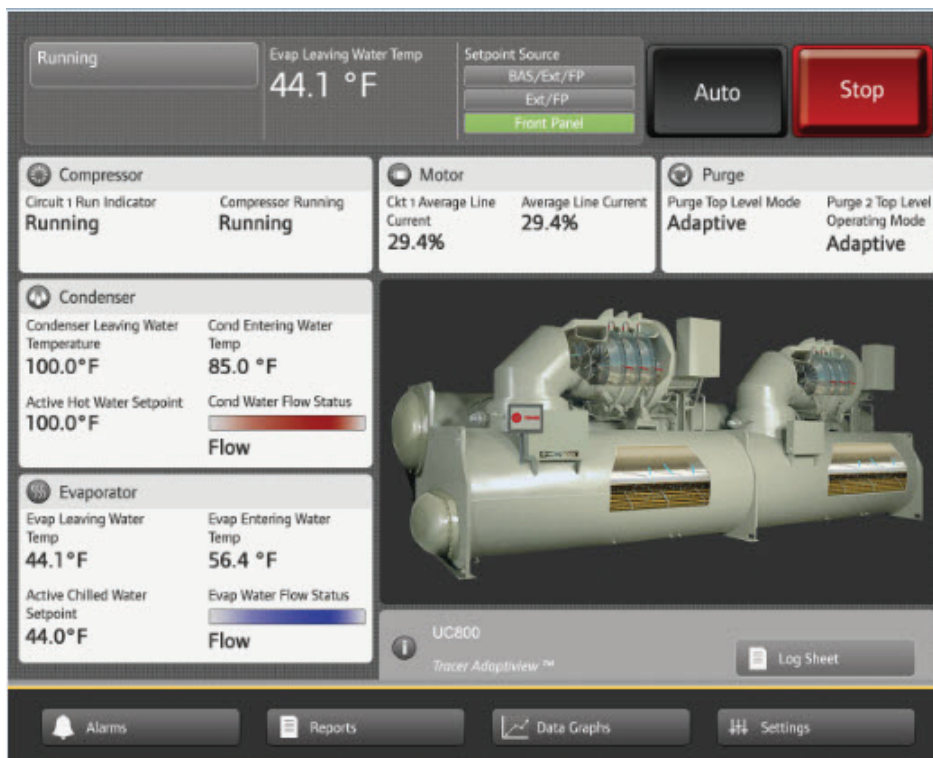
Tracer® AdaptiView™ Display for CenTraVac™ Water-cooled Chillers

⚠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.

March 2020   **CTV-SVU01G-EN**

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:

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

⚠ CAUTION — 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.

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

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

⚠ 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 Labeling 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.

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Revision History

- Added LLID Binding section.
- Updated "Evaporator settings and status points (Simplex)", "Condenser settings and status points (Simplex)", "Motor settings and status points (Simplex)", "Condenser data" and "Evaporator data" tables in Appendix A — Data for CenTraVac Simplex Chillers.

Table of Contents

Product Overview

The Tracer® AdaptiView™ display provides a means for viewing data and for making operational changes on the following types of chillers:

- Simplex (single compressor) CenTraVac™ chiller models
- Duplex™ (dual compressor) CenTraVac™ chiller models

The purpose of this guide is to assist you in using the Tracer® AdaptiView™ display. This guide describes how to access the screens and the types of information that appear on the screens.

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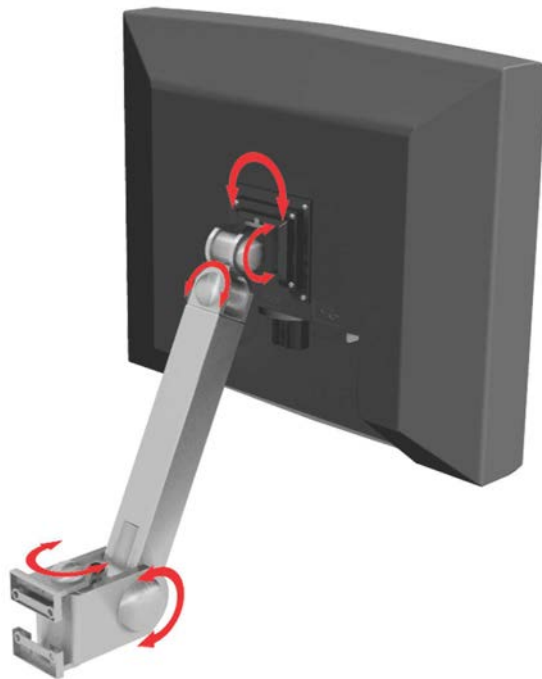
- Two horizontal pivots points 90° right or left (180° total)
- Two vertical pivots points: 90° degrees up or down (180° total)
- Rotation: 135° clockwise and 135° counterclockwise (270° total)

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 and its components.

DC Power

The Tracer® AdaptiView™ display receives 24 Vdc power through its power cable. The Tracer® UC800 controller must be powered on.

Communication

A separate ethernet cable provides communication between the Tracer® AdaptiView™ display and the Tracer® UC800 controller. Alarms are communicated immediately upon detection.

Touchscreen Guidelines

The touch screen registers the downward pressure of a touch. However, touching with increased pressure has no effect.

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

If you apply and hold pressure at more than one point, the touch screen registers only the first touch. For example, if you press a finger on an area of the screen that is not touch sensitive, pressing a sensitive area with another finger will not register.

Holding on to the screen with your hand can cause unintended navigation, such as from thumb or palm pressure.

Related Information

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

- CVHE-SVX02*-EN (*Installation, Operation, and Maintenance: CVHE, CVHF, and CVHG Water-Cooled CenTraVac Chillers with Tracer AdaptiView Control*)
- CDHF-SVX01*-EN (*Installation, Operation, and Maintenance: CDHF and CDHG Water-Cooled CenTraVac Chillers with Tracer AdaptiView Control*)
- CVHH-SVX001*-EN (*Installation, Operation, and Maintenance: CVHH Water-Cooled CenTraVac Chillers with Tracer AdaptiView Control*)
- CDHH-SVX001*-EN (*Installation, Operation, and Maintenance: CDHH Water-Cooled CenTraVac Chillers with Tracer AdaptiView Control*)
- PRGF-SVX001*-EN (*Installation, Operation, and Maintenance: EarthWise Purge System with Tracer AdaptiView Control for Water-cooled CenTraVac Chillers with R-123 Refrigerant*)
- PRGG-SVX001*-EN (*Installation, Operation, and Maintenance: Purge System with Tracer AdaptiView Control for Water-cooled CenTraVac Chillers with R-514A Refrigerant*)
- CTV-SVD03*-EN (*Diagnostics Manual: Diagnostic Descriptions, Troubleshooting Tables, and Control Component Overview for Water-cooled CenTraVac Chillers with Tracer AdaptiView Control*)
- CTV-SVP02*-EN (*Programming Guide: Tracer TU Service Tool for Water-cooled CenTraVac Chillers with Tracer AdaptiView Control*)
- TTU-SVN01*-EN (*Getting Started Guide: Tracer TU Service Tool*)

Screen Overview

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

Figure 2.   Tracer AdaptiView display (Home screen for Simplex chillers is shown)
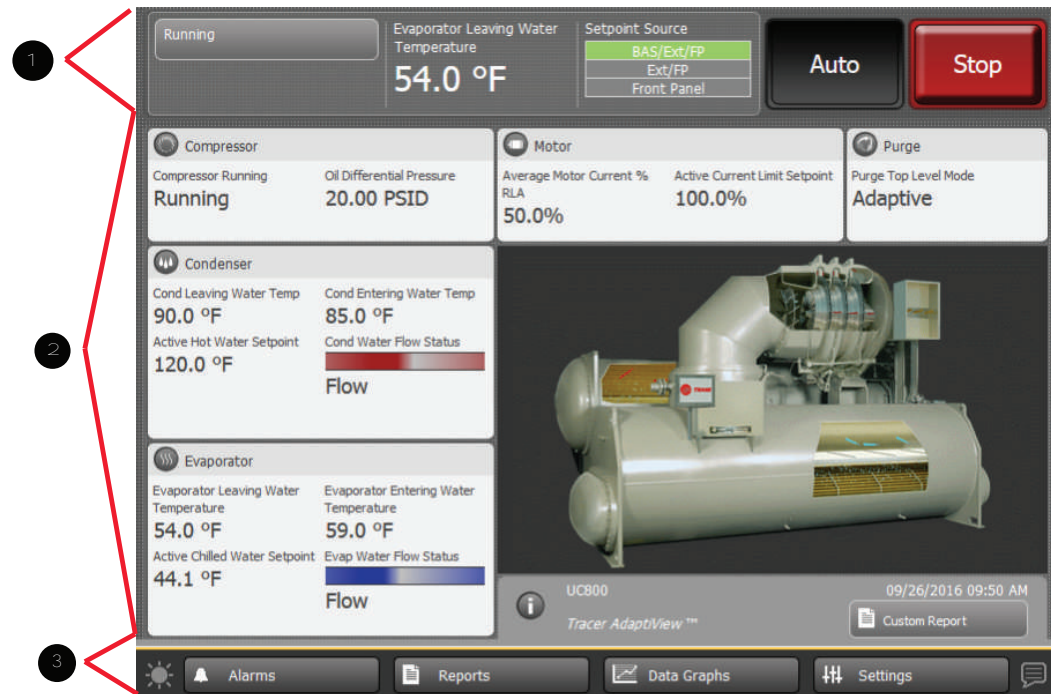
1. "Chiller Status Area," p. 9
2. "Main Display Area/Home Screen," p. 10 This area is different between the Simplex chiller models and the Duplex™ chiller models. Table 2, p. 11 describes the differences.
3. "Main Menu Area," p. 17

Chiller Status Area

The chiller status area (shown as Location 1 in "Screen Overview," p. 8) remains visible from every screen on the Tracer® 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
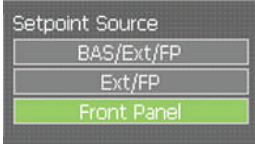
Button/Touch target	Description
Chiller status button Running	The top-level operating mode of the chiller appears on the chiller status button. Touch this button to view the Chiller Operating Mode screen. *Note: For more information, refer to "Reports," p. 65 .*
Alarm indicator button Immediate Shutdown	If an active alarm exists, the alarm indicator button appears with the alarm severity indicated on it. If there is more than one alarm, the most severe appears. You can touch this button as an alternate way to view the Alarms screen. *Note: For more information, refer to "Alarms," p. 20.*
Manual override button Manual Override Exists	If a manual override exists but no active alarm exists, a manual override button appears in the same location as the alarm indicator button. If neither an alarm nor a manual override exist, no button appears. If a manual override exists, you can touch this button as an alternate way to view the Manual Control Settings screen. *Note: For more information, refer to "Manual Control Settings," p. 47.*

Table 1. Chiller status area (continued)

Button/Touch target	Description
Water temperature touch target Evap Leaving Water Temp 40.3 °F	The water temperature touch target shows one of the following, depending on whether the chiller is in heating or cooling mode (also referred to as the Active Control Type): • If the Active Control Type is chilled water, the Evaporator Leaving Water Temperature appears and the touch target links to the evaporator component screen. • If the Active Control Type is hot water, the Condenser Leaving Water Temperature appears and the touch target links to the condenser component screen. • If the Ice Building mode is Active, the Evaporator Entering Water Temperature appears and the touch target links to the evaporator component screen. *Note: For more information on the evaporator and condenser component screens, refer to "Component Screens," p. 14.*
Setpoint source touch target Setpoint Source BAS/Ext/FP Ext/FP Front Panel	The current setpoint source is highlighted in green on the setpoint source touch target. Touch this target to view the Setpoint Source screen, where you can change the setpoint source. *Note: For more information, refer to "Changing the Setpoint Source," p. 44 .*
Auto/Stop buttons Auto Stop	**Auto** and **Stop** are toggle buttons: One appears raised when the other is appears depressed. • Touch **Auto** to activate the chiller startup process. • Touch **Stop** to active the chiller shutdown process. *Note: For more information, refer to "Stopping/Restarting Chiller Operation," p. 18.*

Main Display Area/Home Screen

All screens appear within the main display area (shown as Location 2 shown in the figure in "Screen Overview," p. 8).

Home screen: Chiller status information

The home screen (shown in "Screen Overview," p. 8) provides the most frequently needed chiller status information on "touch targets" (the entire white rectangular areas) for each chiller component. Touching any touch target displays a screen containing more chiller status information related to each component (refer to "Component Screens," p. 14).

Each touch target that appears on the home screen is described in the following table, including those for Simplex chillers, and those for Duplex™ chillers.

In the lower right corner of the home screen, you can view the date and time as well as additional chiller information. For details, see the last three rows of the following table.

Table 2. Home screen touch targets and buttons
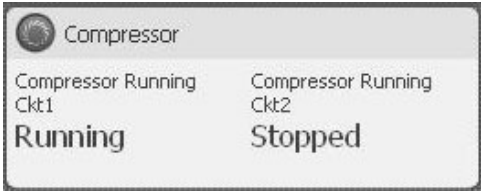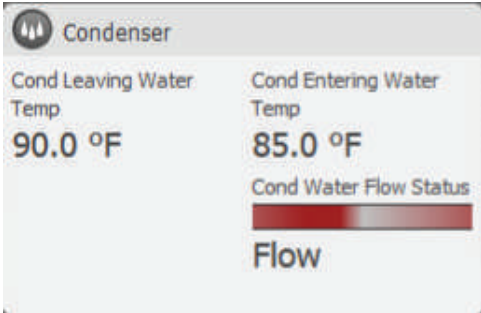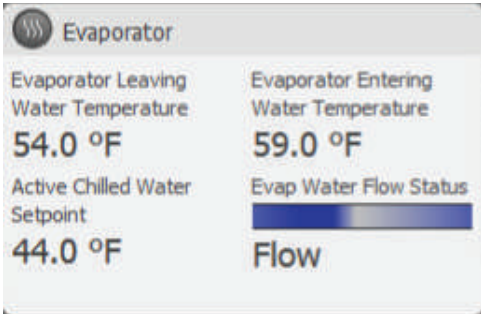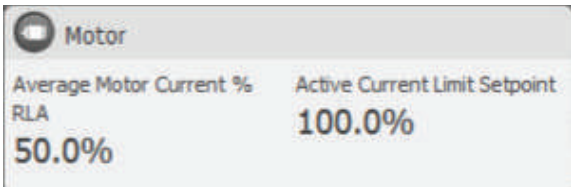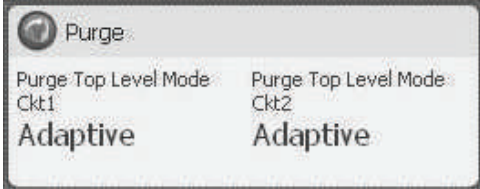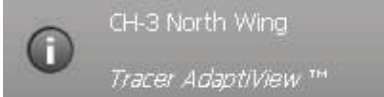
Touch target	Description
Compressor for Simplex chillers **Compressor** Compressor Running — Oil Differential Pressure **Running** — **20.00 PSID**	This compressor touch target chiller provides information on: • Compressor Running Status • Differential Oil Pressure Touch anywhere on the touch target to view the Compressor component screen.
Compressor for Duplex Chillers **Compressor** Compressor Running Ckt1 — Compressor Running Ckt2 **Running** — **Stopped**	This compressor touch target provides information on: • Compressor Running Status Ckt1 • Compressor Running Status Ckt2 Touch anywhere on the Ckt1 side of the touch target to view the Circuit 1 Compressor component screen. Touch anywhere on the Ckt2 side of the tough target to view the Circuit 2 Compressor component screen.
Condenser for all chiller models **Condenser** Cond Leaving Water Temp — Cond Entering Water Temp **90.0 °F** — **85.0 °F** Cond Water Flow Status **Flow**	This condenser touch target provides information on: • Condenser Leaving Water Temperature • Condenser Entering Water Temperature • Active Hot Water Setpoint (if Hot Water Control is available) • Condenser Water Flow Status (animation in graphic indicates if condenser is running) Touch anywhere on the touch target to view the Condenser component screen.
Evaporator for all chiller models **Evaporator** Evaporator Leaving Water Temperature — Evaporator Entering Water Temperature **54.0 °F** — **59.0 °F** Active Chilled Water Setpoint — Evap Water Flow Status **44.0 °F** — **Flow**	The evaporator touch target provides information on: • Evaporator Leaving Water Temperature • Evaporator Entering Water Temperature • Active Chilled Water Setpoint (if Chilled Water Control is available) or Active Ice Termination Setpoint in Ice Building mode) • Evaporator Water Flow Status (animation in graphic indicates if evaporator is running) Touch anywhere on the touch target to view the Evaporator component screen.
Motor for Simplex chillers **Motor** Average Motor Current % RLA — Active Current Limit Setpoint **50.0%** — **100.0%**	The motor touch target provides information on: • Average line current • Frequency (if adjustable-frequency drive is configured) Touch anywhere on the touch target to view the Motor component screen.

Table 2. Home screen touch targets and buttons (continued)

Touch target	Description
Motor for Duplex chillers	The motor touch target provides information on: • Average line current Ckt1 • Average line current Ckt2 Touch anywhere on the Ckt1 side of the touch target to view the Circuit 1 Motor component screen. Touch anywhere on the Ckt2 side of the tough target to view the Circuit 2 Motor component screen.
Purge for Simplex chillers	The purge touch target provides information on: • Purge top level mode Touch anywhere on the touch target to view the Purge component screen. **_Note:_** _The Purge button is not displayed if Purge is not installed._
Purge for Duplex chillers	The purge touch target provides information on: • Purge top level mode Ckt1 • Purge top level mode Ckt2 Touch anywhere on the Ckt1 side of the touch target to view the Circuit 1 Purge component screen. Touch anywhere on the Ckt2 side of the tough target to view the Circuit 2 Purge component screen. **_Note:_** _The Purge button is not displayed if Purge is not installed._
Information button and chiller and display names	Touch the **"i"** or the chiller or display name to view the About this Chiller screen. **_Note:_** _For more information, see "About this Chiller," p. 26 ._
Custom Report	Touch the **Custom Report** button to view the Custom Report screen. **_Note:_** _For more information, see "Creating and Viewing a Custom Report," p. 24._

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, the evaporator, and the condenser, as shown in the figure in "Screen Overview," p. 8. If the chiller is not running, the components are enclosed and are not animated.

The chiller graphic that appears on the screen also indicates the *type* of chiller that the Tracer® AdaptiView™ display is monitoring. One of the following graphics will appear in the display for Simplex chillers:

• 2-stage compressor, cooling only (as shown in the figure in "Screen Overview," p. 8)

• 2-stage compressor with auxiliary condenser

• 2-stage compressor with heat recovery

• 3-stage compressor, cooling only

• 3-stage compressor with auxiliary condenser

• 3-stage compressor with heat recovery

One of the following graphics will appear on the display for Duplex™ chillers:

- 2–stage compressor
- 3–stage compressor

Main Display Area/Screen Saver

After 30 minutes of inactivity, the screen dims and a screen saver appears in the main display area as shown in the following figure. The screen saver also appears if you touch the animated graphic on the home screen. Alternately, if you touch the screen saver, the home screen appears.

Figure 3.   Screen saver

Component Screens

Each chiller component has a touch target, accessible from the home screen, that is illustrated in "Screen Overview," p. 8 (main display area/home screen) and described in "Main Display Area/ Home Screen," p. 10.

Simplex Chillers

If you touch anywhere on a component touch target, a screen appears containing data that is related to that component (see the example in the following figure). You can use the shortcut buttons at the top of each of the component screens to view the other components screens.

"Appendix A: Data for CenTraVac Simplex Chillers," p. 63 lists the settings and status points that are accessible from each of the component screens. The chiller configuration determines which of the settings and status points appear.

Figure 4. **Component screen example for Simplex chillers**
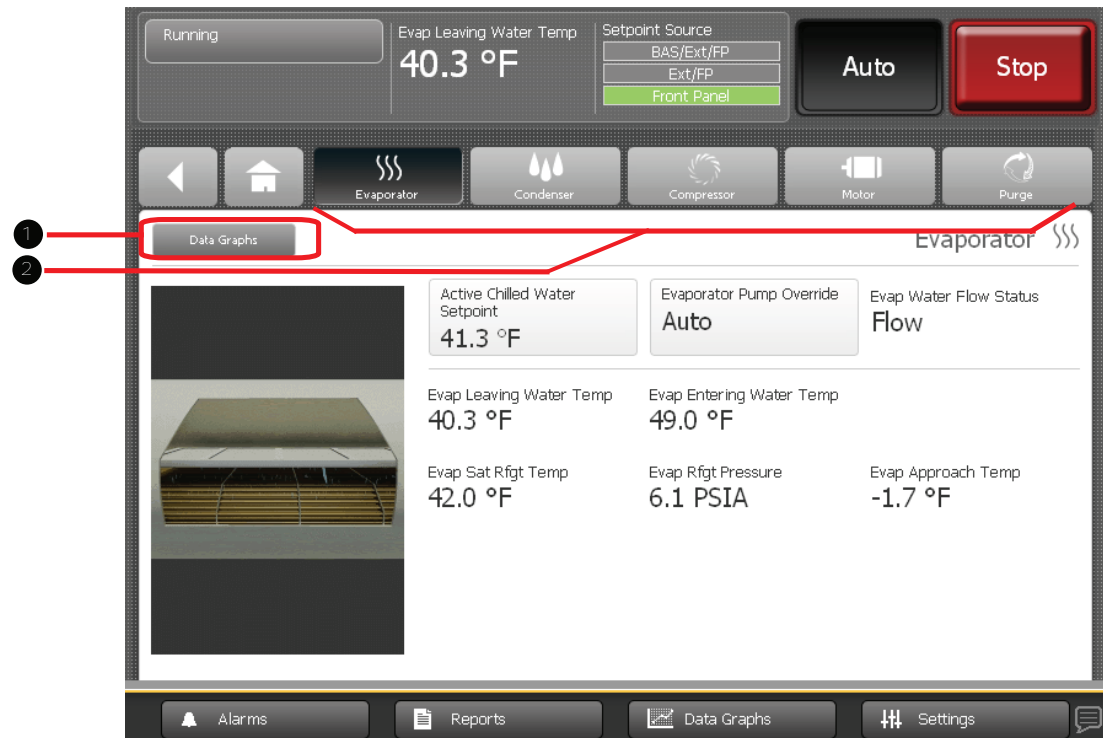
1. Data Graph shortcut button
2. Component screen shortcut buttons

Duplex Chillers

Each component has a separate screen for circuit 1 and circuit 2.

- If you touch anywhere on an evaporator or condenser component touch target, a screen appears containing data related to circuit 1 of that component (refer to the following figure).

- If you touch in the circuit 1 data area of a compressor, motor, or purge component touch target, a screen appears containing data related to circuit 1 of that component. If you touch in the circuit 2 data area of a compressor, motor, or purge component touch target, a screen appears containing data related to circuit 2 of that component.

Circuit 1 and Circuit 2 buttons at the bottom of each component screen (see Location 4 in the following figure) allow you to toggle between circuit 1 and circuit 2 component screens.

You can use the shortcut buttons at the top of each of the component screens (see Location 2 in the preceding figure) to view the other components screens. If you are viewing a circuit 1 component screen and touch a shortcut button, the circuit 1 screen for the component represented by that button appears; and likewise for circuit 2.

lists the settings and status points that are accessible from each of the component screens. The chiller configuration determines which of the settings and status points appear.

Figure 5. Component screen example for Duplex chillers
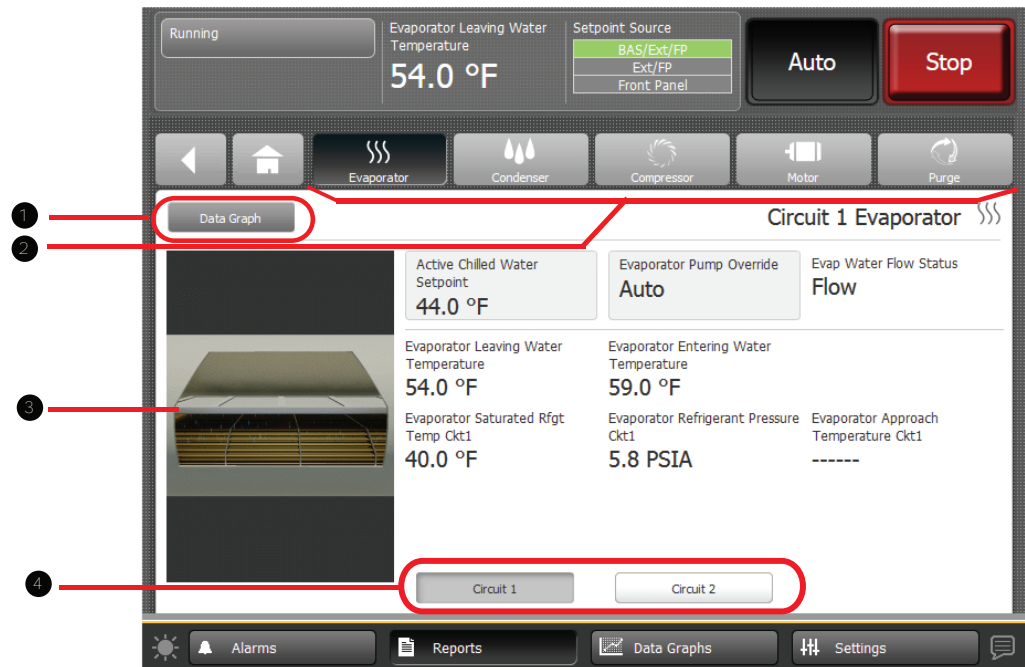
1. Data Graph shortcut button
2. Component screen shortcut buttons
3. Animated graphic
4. Circuit 1 and Circuit 2 components screen toggle buttons

Component Screen Settings

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

Note: *For more information about changing settings, see* "Equipment Settings," p. 39.

Data Graph Shortcut Button

To view a data graph that is related to the component screen you are viewing, touch the Data Graph button at the top left of the component screen (Location 1 in the preceding two figures).

Component Screen Graphics

On the left side of each component screen is a graphic of the component. If the chiller is running, each graphic, except for the purge graphic, is animated.

Main Menu Area

The main menu area (shown in "Screen Overview," p. 8) 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 3. 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. ***Note:*** *For more information, see "Alarms," p. 20.*
Reports	Touch the **Reports** button to view the Reports screen. ***Note:*** *For more information, see . "Reports," p. 23.*
Data Graphs	Touch the **Data Graphs** button to view the Data Graphs screen. ***Note:*** *For more information, see "Data Graphs," p. 32.*
Settings	Touch the **Settings** button to view the Settings screen, which is separated into the following three categories: • "Equipment Settings," p. 39 • "Display Settings," p. 51 • "Security Settings," p. 58 ***Note:*** *Refer to the page numbers for detailed information about each category.*
(Language icon)	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.) ***Note:*** *For more information, see "Viewing and Changing the Language Preference," p. 54.*
(Brightness buttons)	Touching the brightness button will cycle the display brightness from 30% to 60% to 90% brightness.

Stopping/Restarting Chiller Operation

You can 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

You can stop the chiller in two ways:

- Normally, which involves stopping the various components sequentially in order to protect them from damage
- Immediately, which 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 the Chiller confirmation screen
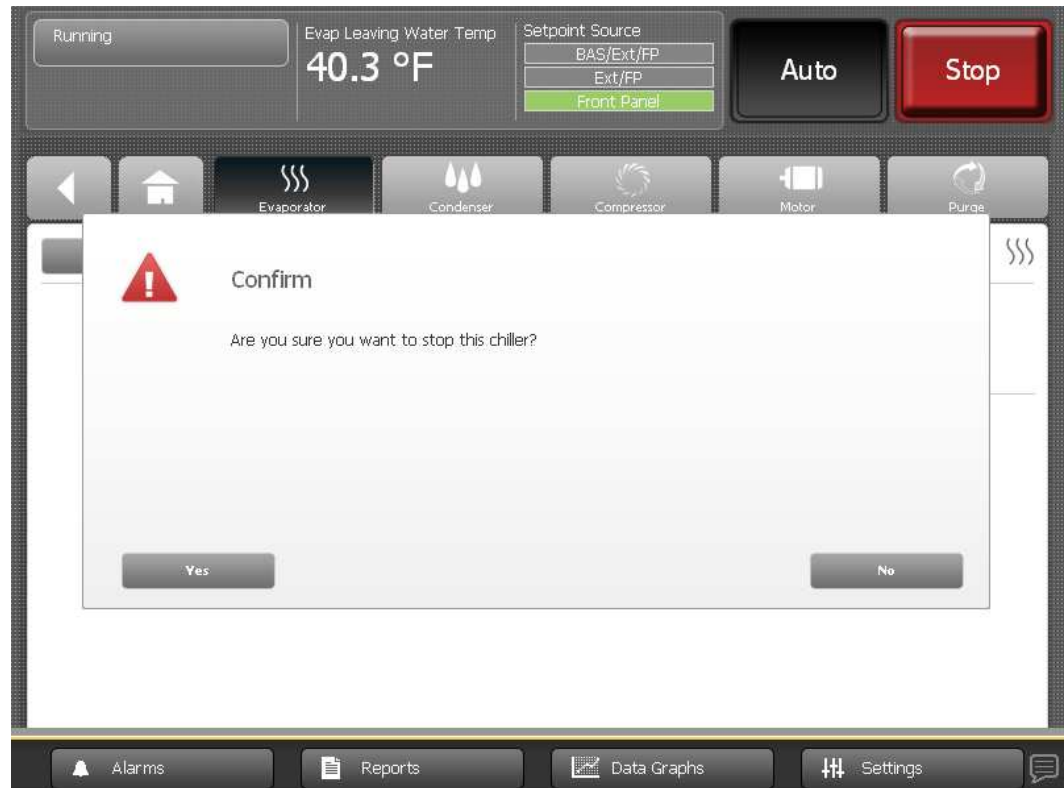
2. Touch the **Yes** button. The Shutting Down Chiller screen appears as shown in the following figure.

   - 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
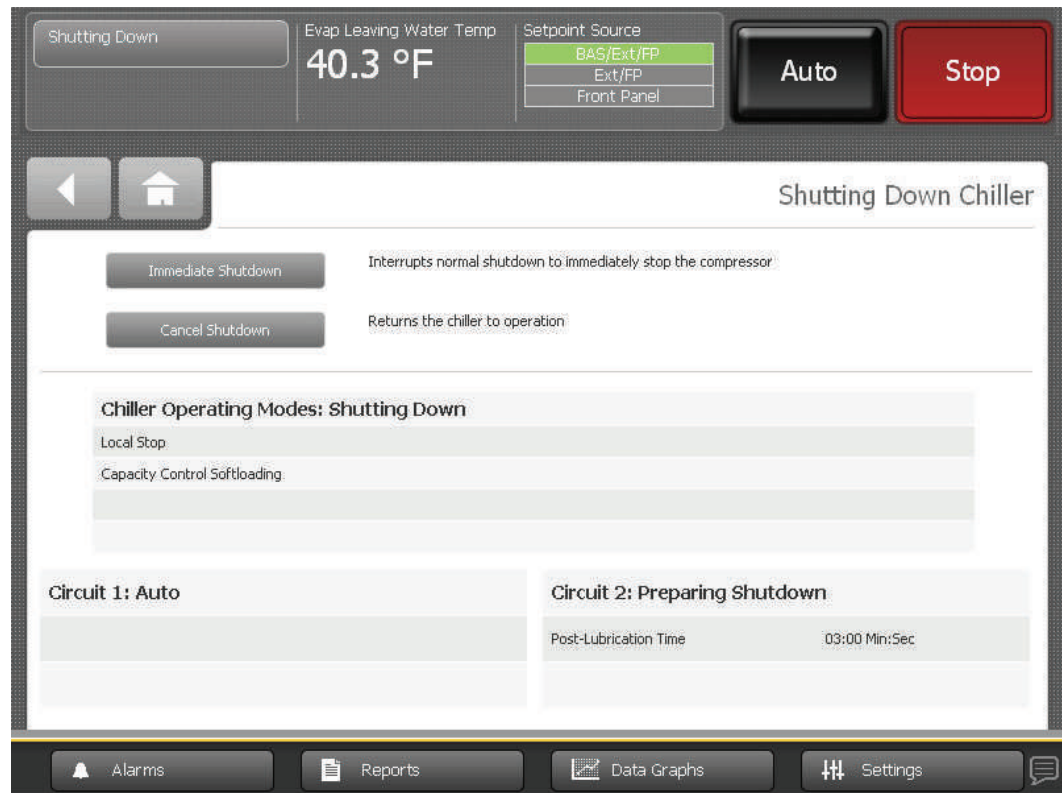
> *Note: If the chiller is a Duplex™, the screen shows top-level modes and submodes for both the chiller and the two circuits.*

Restarting the Chiller

Touch the Auto button to initiate the chiller restart process. 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

You can use the Tracer® AdaptiView™ display to view alarms and to reset them. Alarms are communicated to the display immediately upon detection.

The 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)
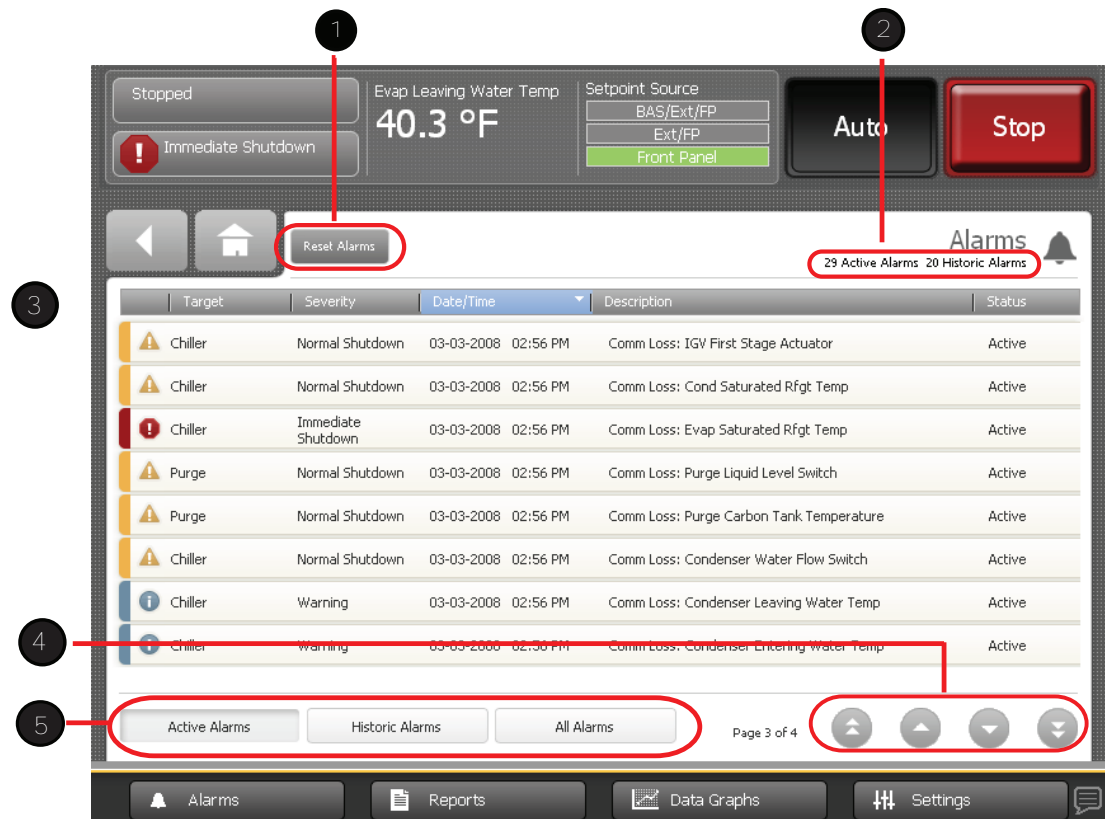
1. Reset Alarms button
2. Number of alarms
3. Sortable columns—The example is sorted by date/time.
4. Page controls

    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.

5. Alarms categories—The example shows active alarms.

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.

Table 4. 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

You can view alarms by three different categories:

- **Active alarms:** These are alarms that require attention. All alarms that are currently active appear when you view this category.
- **Historic alarms:** After an alarm condition has been resolved, the alarm is reclassified as historic. The 20 most recent historic alarms appear when you view this category.
- **All alarms:** All active alarms and the 20 most recent historic alarms appear when you view this category. The alarms are listed in chronological order.

The Alarms screen defaults to active alarms, as in "The Alarms Screen," p. 20. Note that the **Active Alarms** button in Location 5 appears shaded in the figure, which indicates that you are viewing active alarms. To view a different category, touch **Historic Alarms** or **All Alarms**. The button you select 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: Active alarms are at the top (if you are viewing both active and historic alarms), followed by the most severe, followed by the most recent.
- Description: Alarms are sorted alphanumerically by name, followed by the most recent.
- Status: Alarms are sorted according to active/historic status (if you are viewing both active and historic alarms), 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 (refer to "The Alarms Screen," p. 20). 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.

• You do not have to reset non-latching alarms. 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 Indicators

In addition to the Alarms screen, there are two buttons that indicate alarm conditions. These buttons are viewable from any screen on the display. You can touch either one to access the Alarms screen.

• The **Alarms** button in the main menu area of the screen (refer to "Screen Overview," p. 8) 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 shown in "Alarm Icons," p. 21.

• If an active alarm is present, the alarm indicator button (refer to "Chiller Status Area," p. 9) appears in the upper left of the screen, as shown in "The Alarms Screen," p. 20. The icon on this button indicates the level of the most severe active alarm.

![TRANE logo]

Reports

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

The Reports Screen

Touch the **Reports** button in the main menu area (refer to "Screen Overview," p. 8) to view the Reports screen. The Reports screen contains the following buttons:

• Log Sheet
• ASHRAE Chiller Log
• Custom Report
• About This Chiller
• Chiller Operating Modes
• Purge Operating Modes

Each button links to the report named on the button.

Figure 9. Reports screen
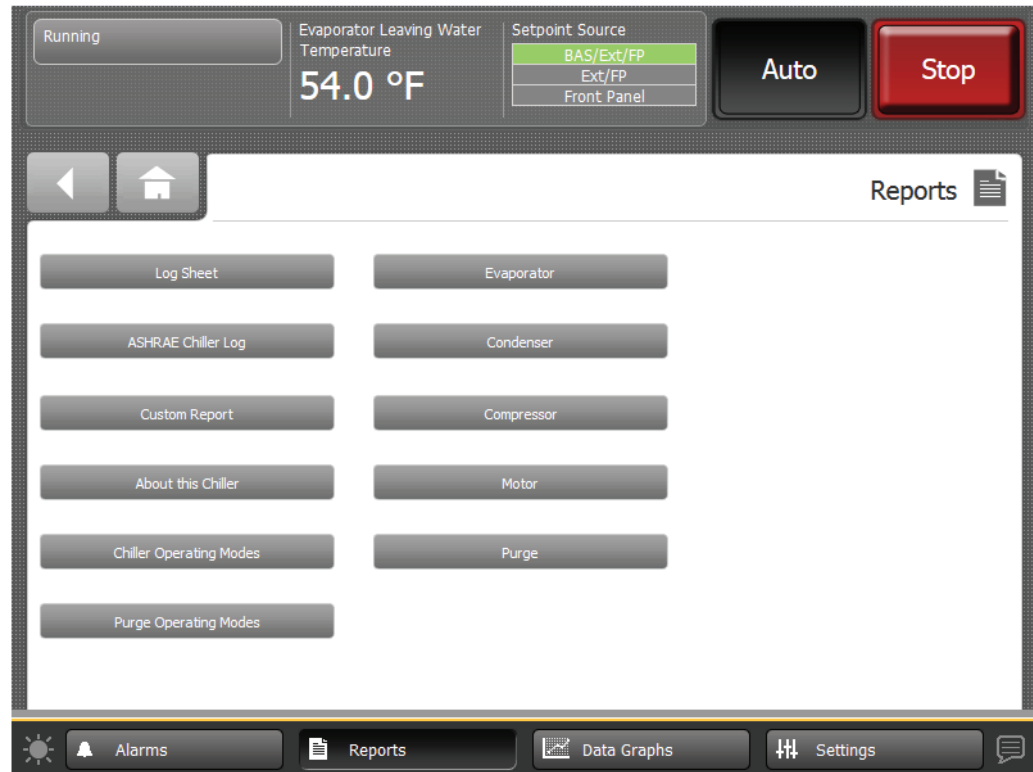
Viewing the Log Sheet

On the Reports screen, touch **Log Sheet** to view the information that is itemized in "Log Sheet," p. 65 for Simplex chillers, and in "Log Sheet," p. 79 for Duplex™ chillers. The items included in the Log Sheet are those recommended by Trane. Refer to current Trane service literature for more information.

Viewing the ASHRAE Chiller Log

On the Reports screen, touch **ASHRAE Chiller Log** to view the information that is itemized in "ASHRAE Chiller Log," p. 67 for Simplex chillers, and in "ASHRAE Chiller Log," p. 80 for Duplex™ chillers.

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. (For Simplex chillers, see "Items Available to Include in Custom Reports," p. 69; for Duplex™ chillers, see "Items Available to Include in Custom Reports," p. 82.)

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 10. Edit Custom Report screen
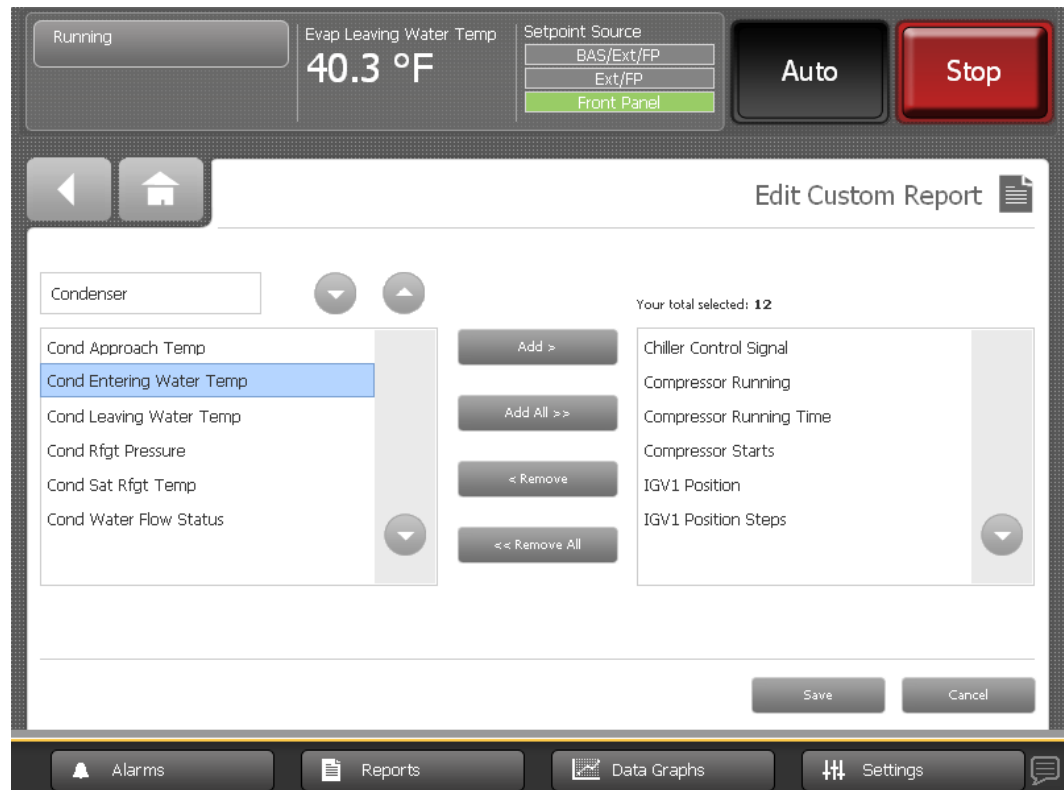
3. Touch the up/down arrows at the top of the left box on this screen to scroll through the items that are available to add to a custom report.

4. To set up a custom report by adding:

   • One item at a time, touch the item. It responds by changing to blue. Touch **Add** to move the selected item to the right box on the screen.

   • All of the items at once to the right box on the screen, touch **Add All**.

   Note: You can organize your selections in any order by using the down arrows that appears 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 11.   Custom Report screen

Editing a Custom Report

You can edit the custom report by adding, removing, or re-order data as follows:

1. On the Custom Report screen, touch **Edit**. The **Edit Custom Report** 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. You an use the arrows to scroll through the rest of the items that can be added to the custom report. Then touch **Add** to move the selected item to the box on the right side of the screen. To add all of the remaining items in the left box to the custom report, touch **Add All**.

   • To remove an item from the custom report, touch it. It responds by changing to blue. You can use the arrows to scroll through the rest of the items that can be removed from the custom report. Then 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 this Chiller

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

- Chiller Name
- Chiller Model Number
- Chiller Sales Order Number
- Product Name
- Controller Build Part Number
- Chiller Serial Number
- Display Firmware Build
- Controller Hardware Serial Number
- Controller Boot Part Number
- Display Boot Code

Viewing Chiller Operating Modes

On the Reports screen, touch **Chiller 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 Chiller Operating Modes screen from the chiller status button in the upper left corner of the screen.

Simplex Chillers

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

Figure 12. Chiller Operating Modes screen for Simplex chillers

Simplex chillers operate in one of the top-level operating modes shown in the following table. The table gives a description of the top-level modes and lists the submodes that correspond to each top-level mode.

Submodes are dependent on the top-level mode. Their appearance on the Chiller 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 5. Chiller top-level operating modes and corresponding submodes for Simplex chillers

Top-level mode	Description	Corresponding submodes
Stopped	Chiller is inhibited from running and requires user action to go to Auto.	Local Stop
		Immediate Stop
		Diagnostic Shutdown—Manual Reset
Run Inhibit	Unit is inhibited from running by building automation system (BAS), external control source (Ext), or Auto Reset diagnostic	Ice Building Is Complete
		Tracer Inhibit
		External Source Inhibit
		Diagnostic Shutdown—Auto Reset
Auto	Unit is determining if there is a need to run.	Waiting for Evaporator Water Flow
		Waiting for a Need to Cool
		Waiting for a Need to Heat
		Power Up Delay Inhibit (MIN:SEC)[a]
Waiting to Start	Unit is waiting for tasks required prior to compressor start to be completed.	Waiting For Condenser Water Flow
		Establishing Oil Pressure
		Pre-Lubrication Time (MIN:SEC)[a]
		Motor Temperature Inhibit: Motor Temperature/ Inhibit Temperature
		Restart Time Inhibit (MIN:SEC)[a]
		AFD Restart Inhibit
		High Vacuum Inhibit: Oil Sump Press/Inhibit Press
		Low Oil Temperature Inhibit: Oil Temperature/ Inhibit Temperature
		Waiting for Starter To Start (MIN:SEC)[a]
Starting Compressor	Unit is starting compressor.	No submode is shown
Running	Compressor is running with no limits in effect.	No submode is shown
		Hot Water Control
		Surge
		Base Loaded
		Hot Gas Bypass
		Ice Building
		Ice To Normal Transition
		Current Control Soft Loading

Table 5. Chiller top-level operating modes and corresponding submodes for Simplex chillers (continued)

Top-level mode	Description	Corresponding submodes
Running—Limit	Compressor is running with limits in effect.	Current Limit
		Phase Unbalance Limit
		Condenser Pressure Limit
		Evaporator Temperature Limit
		Evaporator Rfgt Temperature Higher Than Selection
		Minimum Capacity Limit
		Maximum Capacity Limit
Free Cooling	Unit is in Free Cooling mode and will not run the compressor.	Opening Free Cooling Valves
		Closing Free Cooling Limit
Preparing to Shutdown	Unit is closing inlet guide vanes prior to compressor shutdown.	Closing IGV (IGV Position %)[b]
Shutting Down	Compressor has been stopped and unit is performing shutdown tasks.	Post-Lubrication Time (MIN:SEC)[a]
		Evaporator Pump Off Delay (MIN:SEC[a]
		Condenser Pump Off Delay (MIN:SEC)[a]
		Satisfied Need to Minimum Capacity Timer (will appear for only 10 seconds)

[a] "MIN:SEC" refers to a count-down timer that appears on the screen to indicate how long the submode will remain active.
[b] "IGV Position %" refers to a value that indicates the position of the inlet guide vane (IGV).

Duplex Chillers

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

Figure 13. Chiller Operating Modes screen for Duplex chillers

For Duplex™ chillers, the Chiller Operating Modes screen shows top-level modes and submodes for the chiller (Table 6, p. 29) and for the circuits (Table 7, p. 30). Each table shows top-level modes in the left column, a description in the middle column, and the corresponding submodes in the right column.

Submodes are dependent on the top-level mode. They appear on the Chiller Operating Modes screen with 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 four submodes.
- If less than four submodes are active, the submode rows that do not apply are blank.

Table 6. Chiller top-level operating modes and corresponding submodes for Duplex chillers

Top-level mode	Description	Corresponding submodes
Stopped	The chiller is not running either circuit and cannot run without intervention.	Local Stop
		Immediate Stop
		Diagnostic Shutdown—Manual Reset
Run Inhibit	The chiller is currently being inhibited from starting (and running), but may be allowed to start if the inhibiting or diagnostic condition is cleared.	Ice Building Is Complete
		Start Inhibited By BAS
		Waiting for BAS Communication
		External Source Inhibit
		Diagnostic Shutdown—Auto Reset
		No Circuits Available
Auto	The chiller is not currently running but can be expected to start at any moment given that the proper conditions and interlocks are satisfied.	Waiting for Evaporator Water Flow
		Waiting for a Need to Cool
		Waiting for a Need to Heat
		Power Up Display Inhibit (MIN:SEC)[a]
Waiting to Start	The chiller is going through the necessary steps to allow the lead circuit to start.	The chiller will wait up to 4 minutes and 15 seconds in this mode for condenser water flow to be established by means of the flow switch hardwired input.
Running	At least one circuit on the chiller is currently running.	Hot Water Control
		Base Loaded
		Ice Building
		Ice To Normal Transition (MIN:SEC)[a]
		Current Control Softloading
		Capacity Control Softloading
		Minimum Capacity Limit
Running—Limit	At least one circuit on the chiller is currently running, but the operation of the chiller as a whole is being actively limited by the controls. The submodes that apply the Running top modes may be displayed along with the following limit-specific modes.	All of the chiller-level Running submodes apply. There are no specific submodes associated with Running—Limit.

Table 6. Chiller top-level operating modes and corresponding submodes for Duplex chillers (continued)

Top-level mode	Description	Corresponding submodes
Shutting Down	The chiller is still running, but shutdown is imminent. The chiller is going through a compressor run-unload.	Evaporator Pump Off Delay (MIN:SEC)[a]
		Condenser Pump Off Delay (MIN:SEC)[a]
		Satisfied Need to Cool
		Satisfied Need to Heat
		Satisfied Need to Minimum Capacity Timer (will display for only 10 seconds)
Miscellaneous	These submodes may appear with most of the top-level chiller modes.	Evaporator Pump Off Override
		Condenser Pump Override
		Manual Capacity Override
		IGV Manual Override[b]
		Software Service Lock

[a] "MIN:SEC" refers to a count-down timer that appears on the screen to indicate how long the submode will remain active.
[b] "IGV Position %" refers to a value that indicates the position of the inlet guide vane (IGV).

Table 7. Circuit-level operating modes and corresponding submodes for Duplex chillers

Top-level mode	Description	Corresponding submodes
Stopped	The circuit is not running, and cannot run without intervention.	Diagnostic Shutdown—Manual Reset
		Front Panel Circuit Lockout
Run Inhibit	The circuit is currently being inhibited from starting (and running), but may be allowed to start if the inhibiting or diagnostic condition is cleared.	Diagnostic Shutdown—Auto Reset
		External Circuit Lockout
Auto	The circuit is currently not running but is expected to start at any moment if the proper conditions are satisfied.	No Circuit Submodes
Waiting To Start	The chiller is going through the necessary steps to allow the lead circuit to start.	Waiting for Low Oil Differential Pressure
		Establishing Oil Pressure
		Pre-Lubrication Time (MIN:SEC)[a]
		Motor Temperature Inhibit: Motor Temperature/Inhibit Temperature
		Restart Time Inhibit (MIN:SEC)[a]
		High Vacuum Inhibit: Oil Sump Press/Inhibit Press
		Low Oil Temperature Inhibit: Oil Temperature/Inhibit Temperature
		Waiting for Starter To Start (MIN:SEC)[a]
		Waiting for IGV Positioning to Complete[b]
		Waiting for Starter Interlock
Starting Compressor	The circuit is going through the necessary steps to allow the compressor on that circuit to start.	No submodes

Table 7. **Circuit-level operating modes and corresponding submodes for Duplex chillers (continued)**

Top-level mode	Description	Corresponding submodes
Running	The compressor on the circuit is currently running.	Surge
		Hot Gas Bypass
		Current Limit
		Phase Unbalance Limit
		Evaporator Temperature Limit
		High Compressor Discharge Temp Limit
Running—Limit	Compressor is running with limits in effect.	Current Limit
		Phase Unbalance Limit
		Condenser Pressure Limit
		Evaporator Temperature Limit
		High Compressor Discharge Temp Limit
Preparing to Shutdown	The circuit is preparing to de-energize the compressor.	Closing IGV[b]
Shutting Down	The chiller is going through the necessary steps after de-energizing the compressor.	Post-Lubrication Time (MIN:SEC)[a]
Miscellaneous	These submodes may appear with most of the top-level chiller modes.	Overdrive IGV Closed[b]
		Oil Pump Override

[a] "MIN:SEC" refers to a count-down timer that appears on the screen to indicate how long the submode will remain active.
[b] "IGV Position %" refers to a value that indicates the position of the inlet guide vane (IGV).

Purge Operating Modes

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

Note: *For Duplex™ chillers, the operating status of purge system is shown in terms of the two circuits.*

The purge system operates in one of four top-level operating modes:

• Stop

• On

• Auto

• Adaptive

Submodes are dependent on the top-level mode. Their appearance on the Purge 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.

For detailed information about purge operating modes and submodes, refer to PRGF-SVX001*-EN (*Installation, Operation, and Maintenance: EarthWise Purge System with Tracer AdaptiView Control for Water-cooled CenTraVac Chillers with R-123 Refrigerant*) or PRGG-SVX001*-EN (*Installation, Operation, and Maintenance: Purge System with Tracer AdaptiView Control for Water-cooled CenTraVac Chillers with R-514A Refrigerant*), as appropriate.

Data Graphs

You can use the Tracer® AdaptiView™ display 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 data sample rate is 30 seconds, and the data storage duration is 48 hours. These rates cannot be adjusted.

The 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 Simplex chillers are:

- Chiller Overview 1
- Chiller Overview 2
- Approach Temperature
- Evaporator
- Motor
- Condenser
- Motor Temperature
- Compressor
- Purge
- Oil System or Lube System

When you create custom graphs, they appear under the Custom Graphs heading with names such as "Custom 1" and "Custom 2," as shown in the following figure.

Figure 14.   Data Graphs screen

The buttons under the Default Graphs heading for Duplex™ chillers are:

Chiller

- Chiller Overview 1

- Chiller Overview 2
- Evaporator
- Condenser

Circuit 1

- Oil System
- Approach Temperature
- Compressor
- Motor
- Motor Temperature
- Purge

Circuit 2

- Oil System
- Approach Temperature
- Compressor
- Motor
- Motor Temperature
- Purge

Viewing Data Graphs

On the Data Graphs screen, touch any of the buttons to view a live graph. (The following figure shows Chiller Overview 1 as an example). For every graph, the X-axis shows time. The Y-axes presents data points specific to each graph. The data points are listed in "The Data Graphs Screen," p. 32.

Figure 15.   Example of Data Graph (Chiller Overview 1 shown)
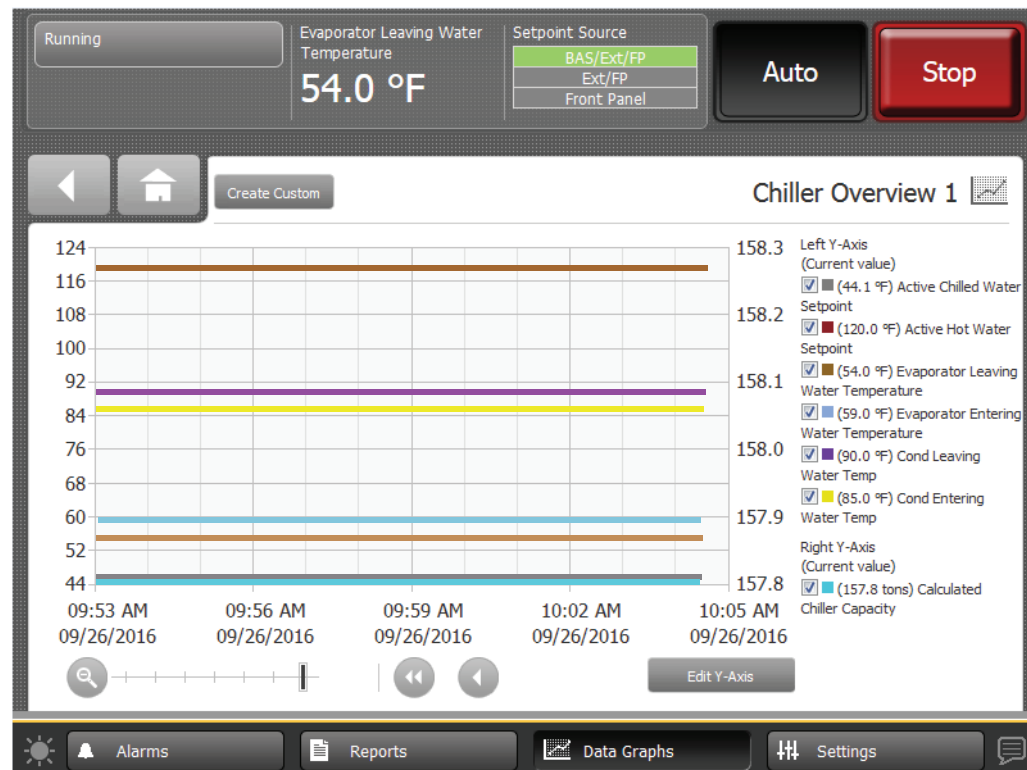
Changing the Scales on Data Graphs

Changing the Scale of the X-axis

The X-axis scale defaults to the most recent 60 minutes with 15 minutes in between the time labels that appear across the bottom of the graph. You can change the scale from the last 12 minutes to the last 2 days and increments in between, as follows:

- 12-minute graph with 3 minutes between time labels
- 40-minute graph with 10 minutes between time labels
- 60-minute graph with 15 minutes between time labels
- 4-hour graph with 1 hour between time labels
- 8-hour graph with 2 hours between time labels
- 1-day graph with 6 hours between time labels
- 2-day graph with 12 hours between time labels

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 (for an example, refer to the figure in "Viewing Data Graphs," p. 33). 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 (for an example, refer to the figure in "Viewing Data Graphs," p. 33). The Set Axis Range screen appears in the following figure. The screen shows the minimum and maximum values for that particular graph.

Figure 16.   Set Axis Range screen

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.

Creating Custom Data Graphs

You can create a custom data graph in two ways:

- By starting with a default data graph
- By starting from a blank screen, with no previously defined data graph points

Creating a Custom Data Graph From a Default Data Graph

1. Touch the **Create Custom** button at the top left of any default data graph screen (for an example, refer to the figure in "Viewing Data Graphs," p. 33). The Data Graph Points screen appears as shown in the following figure.

Figure 17. **Data Graph Points screen**
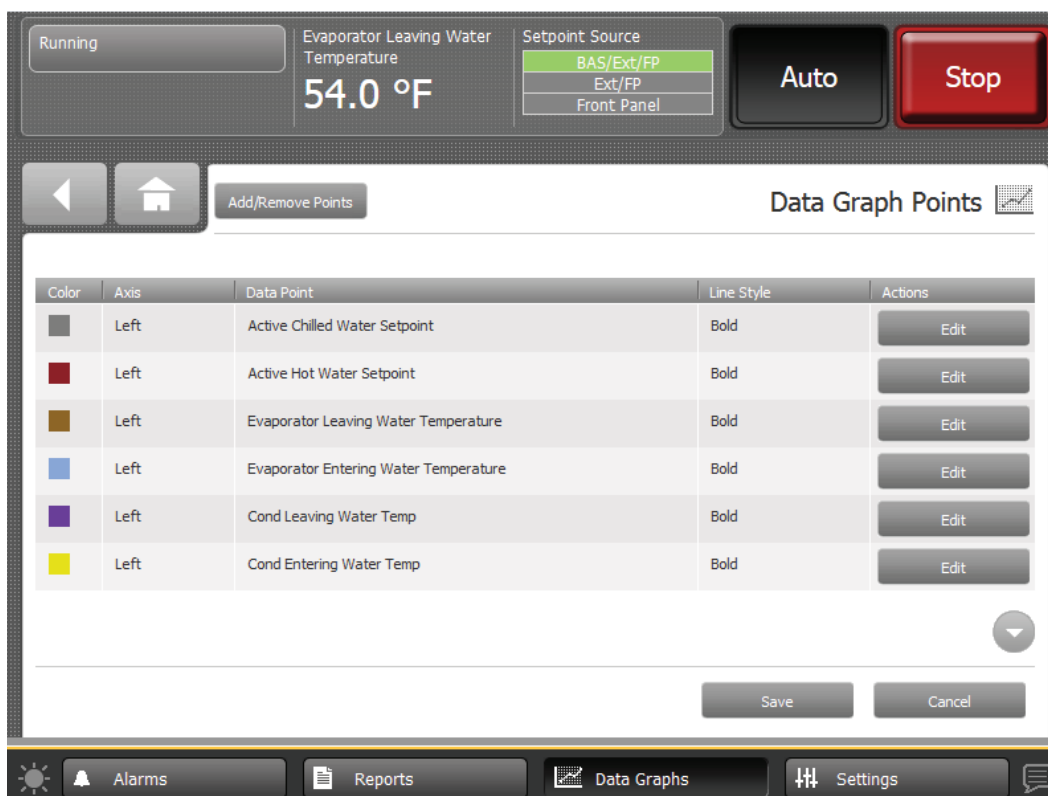
2. Touch the **Add/Remove Points** button at the top left of the screen. The Add/Remove screen appears (refer to the following figure), pre-populated with data points from the default data graph you chose.

Note: When you save the graph, a new custom graph is created; the default data graph is not overwritten.

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 components. The list of items in the box just below the up/down arrows changes to correspond to the component choice. (For reference, these items are listed in "Appendix A: Data for CenTraVac Simplex Chillers," p. 63 and "Appendix B: Data for

).

Figure 18. Add/Remove screen example
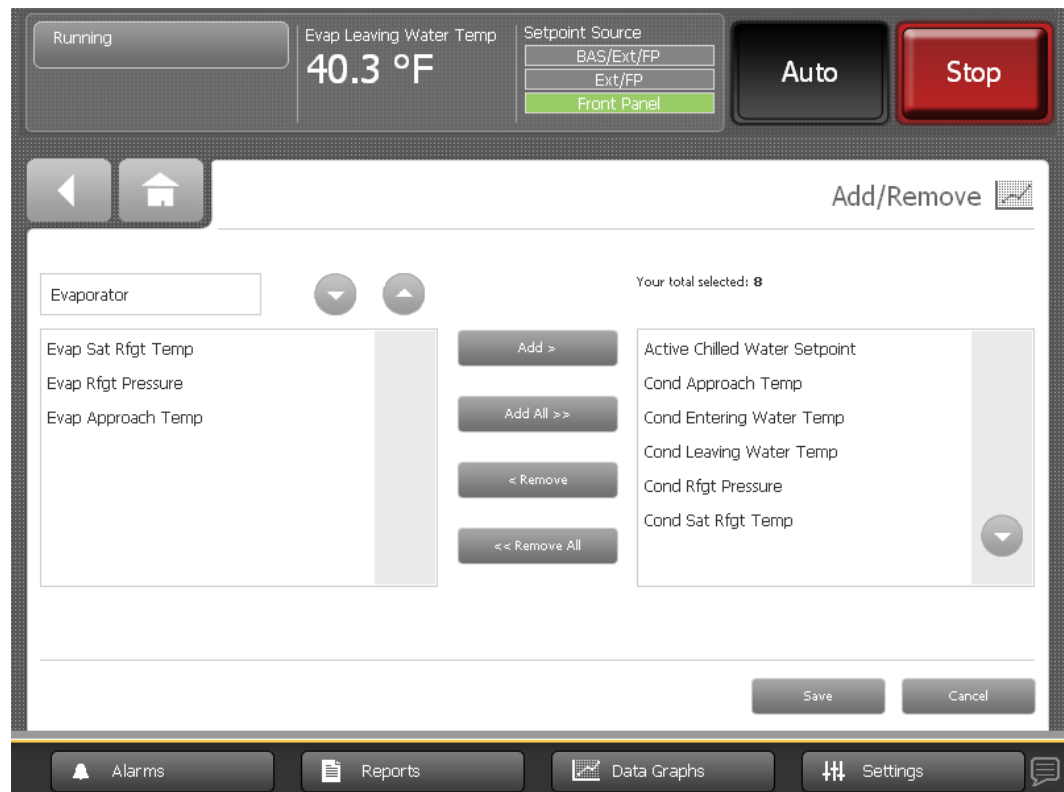
4. To choose points to include in the custom data graph, you can do any of the following:

   • 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 add all of the items in the left box to the right box, touch **Add All**.

   • 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 you are finished choosing data points, touch **Save**. The Data Graph Points screen appears. Touch the **Finished** button to view the custom data graph you have just created (refer to the following figure.

   Note: To edit the appearance of data points in the graph, refer to "Editing Custom Data Graphs," p. 37.

Figure 19.   Custom data graph example
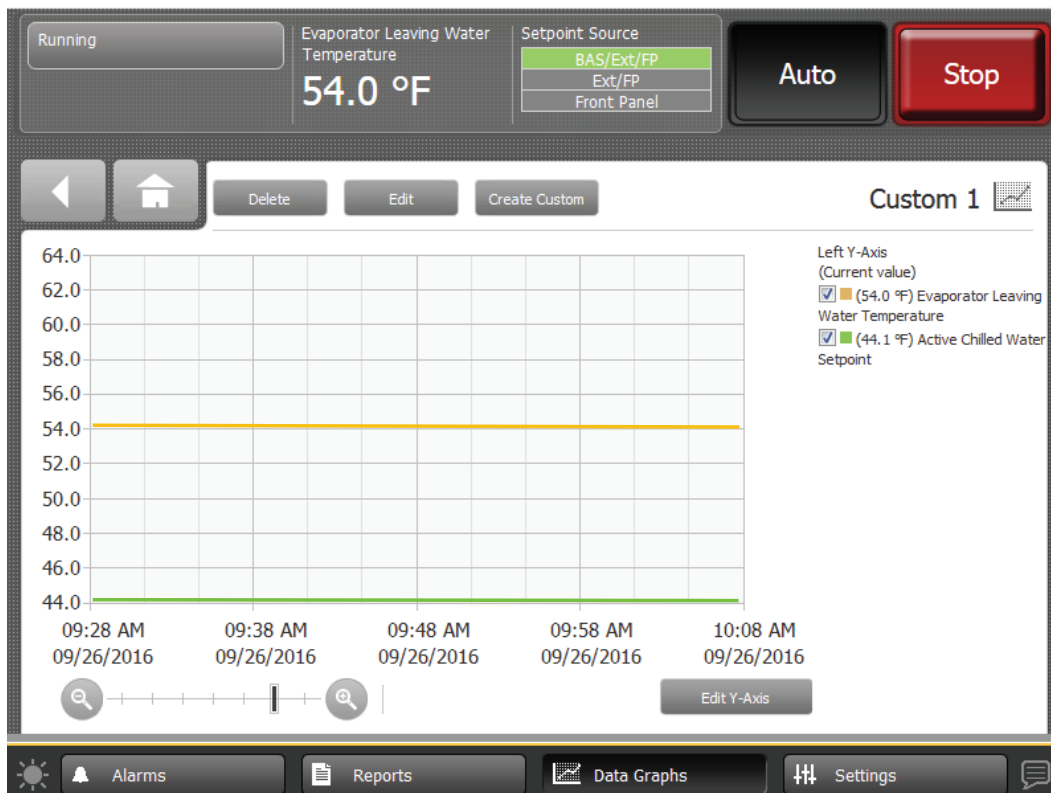
Creating a Custom Data Graph With No Previously Defined Data Graph Points

1. Touch the **Create Custom** button at the top left of the Data Graphs screen (Figure 14, p. 32). The Add/Remove screen appears (see), but with no data on the screen.

2. Continue by following Step 3 through Step 5 in "Creating a Custom Data Graph From a Default Data Graph," p. 35.

Editing Custom Data Graphs

You can edit custom data graphs by:

*   Changing the scales of the X-axis and Y-axes (follow the procedures in "Changing the Scales on Data Graphs," p. 34).

*   Changing the:

    –   Line style between bold and normal

    –   Y-axis location between left and right

    –   Line color

1. To edit a data point, touch the **Edit** button in the row for the data point you want to edit. The Edit Data Point screen appears (refer to the following figure).

2. Touch the button in each category—Line Style, Y-Axis, Color—that represents how you want the graph to appear. The buttons you select become shaded.

3. Touch **Save**. The screen you were previously viewing appears with your changes reflected in the table.

Figure 20.   Edit Data Point screen
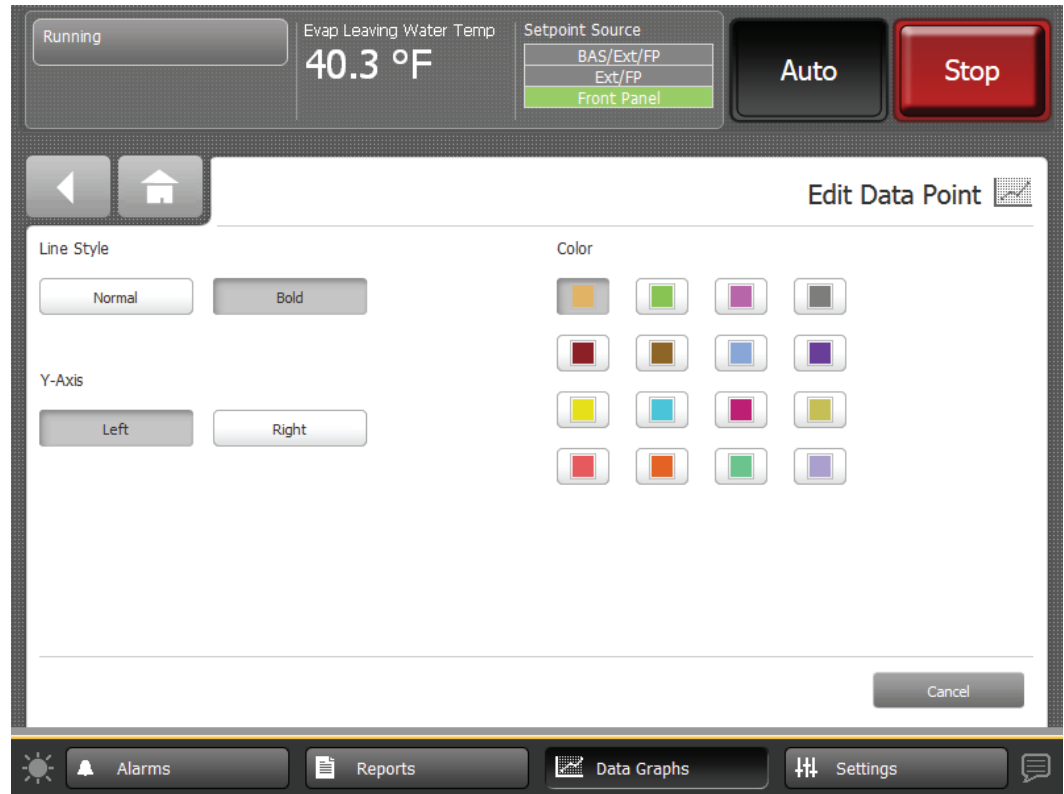
Deleting a Custom Data Graph

Touch the **Delete** button at the top of a custom graph screen to delete the custom graph.

Equipment Settings

You can use the Tracer® AdaptiView™ display to monitor and change a variety of equipment settings.

The Settings Screen

Touch the **Settings** button in the main menu area (see "Main Menu Area," p. 17) to view the Settings screen. *Equipment Settings* identifies a column of buttons located on the screen. (Refer to the outlined column in the following figure.) The buttons are:

- Chiller Settings
- Feature Settings
- Chiller 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 21. Settings screen with the Equipment Settings column highlighted
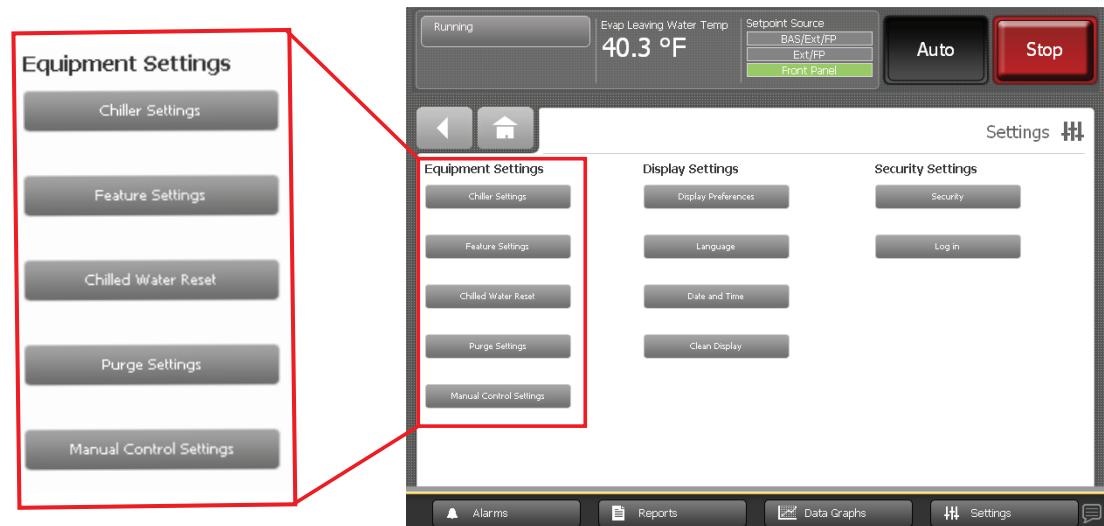
Viewing and Changing Equipment Settings

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 22.   Example equipment settings screen (Chiller Settings shown)
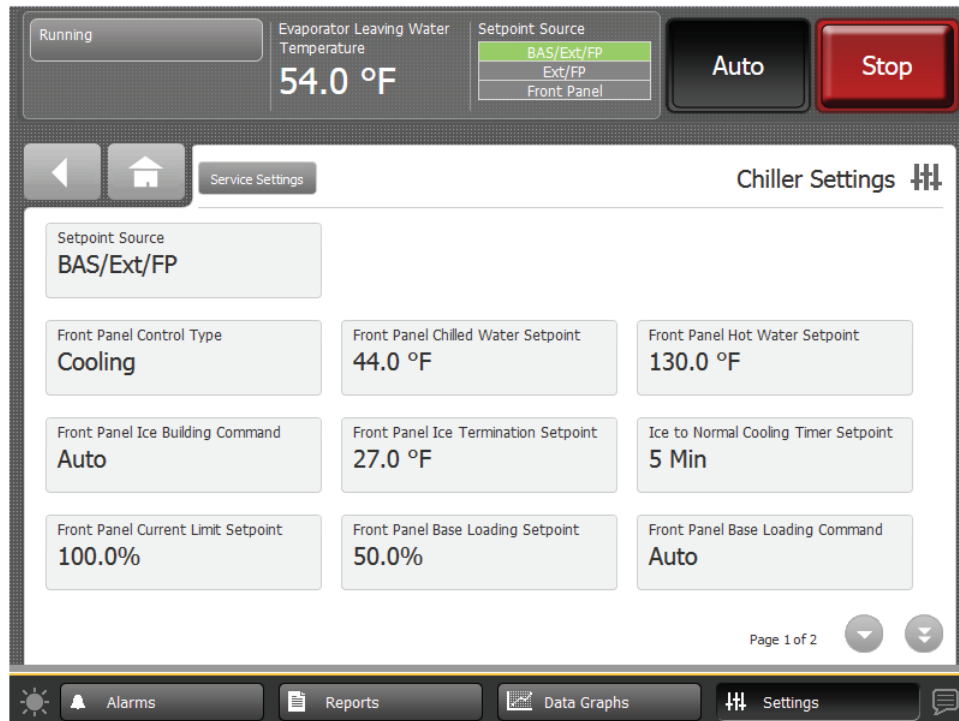
To change an equipment setting, follow this procedure:

1. Touch one of the buttons in the Equipment Settings column on the Settings screen, such as Chiller Settings. The corresponding screen appears (in this case, the Chiller 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 23. **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 24. **Example equipment settings screen with keypad for changing setting**
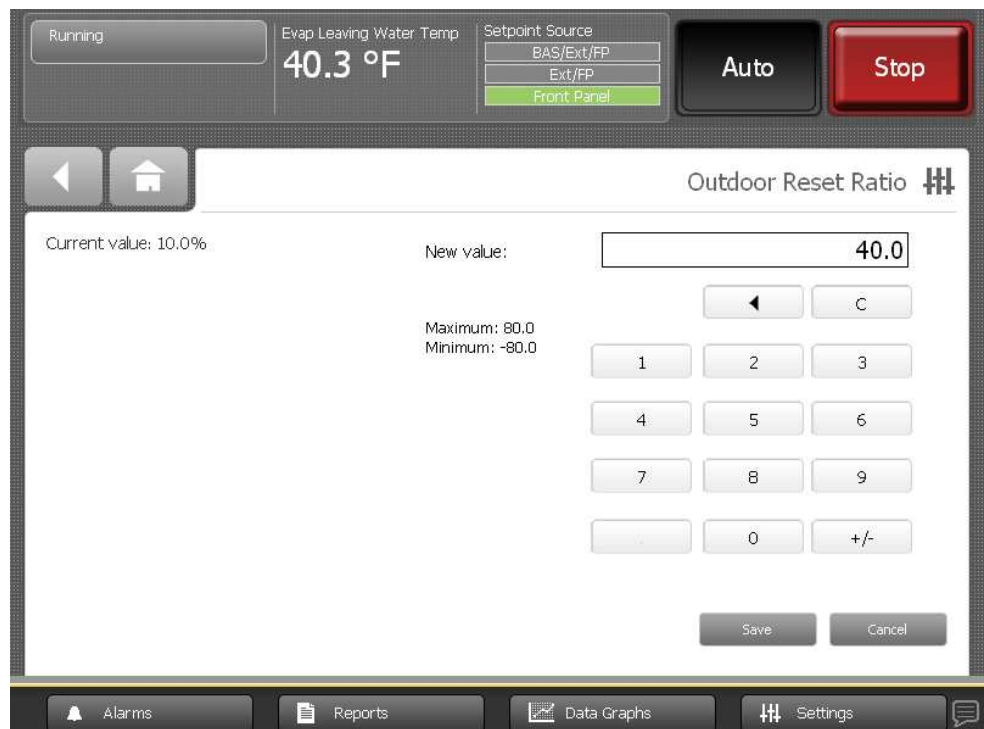
Keypad features:

– 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 Tracer UC800 controller. The screen you were previously viewing appears.

Note: Manual Control Settings screens have Apply buttons in addition to Save buttons. For an example, refer to "Manual Control Settings," p. 47. Touching Apply is the same as touching Save, except that you remain at the current screen after the change is communicated to the Tracer® UC800 controller.

Chiller Settings

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

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

Page 1 of 2		
Setpoint Source BAS/Ext/FP Ext/FP Front Panel		
Front Panel Control Type Cooling/ Heating	Front Panel Chilled Water Setpoint XX.X °F/C	Front Panel Hot Water Setpoint XXX.X °F/C
Front Panel Ice Building Command Auto/On	Front Panel Ice Termination Setpoint XX.X °F/C	Ice to Normal Cooling Timer Setpoint XX Min
Front Panel Current Limit Setpoint XXX.X %	Front Panel Base Loading Setpoint XXX.X %	Front Panel Base Loading Command Auto/On
Page 2 of 2		
Differential to Start XX.X °F/C	Differential to Stop XX.X °F/C	Front Panel Free Cooling Command Auto/On
Condenser Water Pump Off Delay XX Min	Evaporator Water Pump Off Delay XX Min	Evap Low Water Flow Warning SetpointXXXX.X gpm/lpm
Power-Up Start Delay XXX Sec	Starter Power Demand Time Period XXX Min	

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.

Table 9. Service Settings menu screen: Buttons and available settings options

Page 1 of 2		
Evaporator Leaving Water Temp Cutout XX.X °F/C	Low Refrigerant Temperature Cutout XX.X °F/C	Local Atmospheric Pressure XX.X PSI/kPa
Maximum Capacity Limit XXX.X %	Minimum Capacity Limit XXX.X % *(Formerly in Chiller Settings)*	BAS Setpoint Power Loss Store Enable Enable/Disable
Check Oil Filter Setpoint XX.XX PSID/kPaD -or- Check Lube Filter Setpoint XX.XX PSID/kPaD (CVHS Only)	Startup Lube Diff Pressure Threshold XX.XX PSID/kPaD (CVHS Only)	
Capacity Control Softload Time XXX Sec	Current Limit Control Softload Time XXX Sec	Current Limit Softload Start Point XXX.X %
Page 2 of 2		
Condenser Limit Setpoint XXX.X %	Head Pressure Control Pre-Position Setpoint XXX.X %	Head Pressure Control Pre-Position Setpoint XXX.X %
Staging On Boundary XXX.X % (Duplex Only)	Staging Off Boundary XXX.X % (Duplex Only)	

Setpoint Sources

Some setpoints can be controlled from more than one source; these are referred to as *arbitrated setpoints*. Arbitrated setpoints can be:

- Communicated from a building automation system (BAS)—Refers to a Trane or other BAS that can communicate with chiller controls over a network.

- Set by an external control source (Ext)—Refers to inputs that are hard-wired directly to local chiller controls, carrying low-voltage binary (On/Off) or analog (0–10 Vdc, 4–20 mA) signals.

- Set at the front panel (FP)—Refers to inputs that are entered by an operator using the Tracer® AdaptiView™ display or by a technician using the Tracer® TU service tool.

Setpoint Source Arbitration

The Tracer® UC800 uses a process referred to as *setpoint source arbitration* to prioritize the selection of the setpoint source. The following table provides an explanation of how this process works.

Table 10. Setpoint source choices and corresponding arbitration

Priority	BAS/Ext/FP	Ext/FP	Front Panel
First	Setpoint from the BAS is used.	Setpoint from a external control source is used.	Setpoint from the front panel is used. ***Note:*** *Any setpoint from a BAS or external control source is ignored.*
Second	If no BAS setpoint is available (for example, BAS communication has never been established), a setpoint from an external control source is used.	If no externally controlled setpoint is available, a setpoint from the front panel is used. ***Note:*** *Any setpoint from a BAS is ignored.*	None

Table 10. Setpoint source choices and corresponding arbitration (continued)

Priority	BAS/Ext/FP	Ext/FP	Front Panel
Third	If no BAS nor external setpoint is available (for example, BAS communication has never been established), a setpoint from the front panel is used.	None	None

Notes:
1. For service or troubleshooting, it may be helpful to set the setpoint source to front panel to isolate the chiller from other control sources.
2. If BAS communication was established and then lost, in most instances the BAS values remain and can be used by the chiller controller.

Changing the Setpoint Source

There are three ways to access the Setpoint Source screen. To change the setpoint source, follow one of these procedures:

Using the Setpoint Source Button in the Chiller Status Area

1. Touch the **Setpoint Source** button in the chiller status area (refer to "Screen Overview," p. 8).

   The Setpoint Source screen appears as shown in the following figure.

2. Touch the appropriate source button on the Setpoint Source screen.

3. Touch **Save** to complete the change.

   Note: The change applies to all arbitrated setpoints.

Figure 25. Setpoint Source screen

From the Setpoint Source Button on the Chiller Settings Screen

1. Touch the **Settings** button in the main menu area (refer to "Screen Overview," p. 8). The Settings screen appears.

2. From the Settings screen, touch the **Chiller Settings** button. The Chiller Settings screen appears.

3. From the Chiller Settings screen, touch the button that is labeled "Setpoint Source" and displays the current source. The Setpoint Source screen appears (refer to the preceding figure).

4. Touch the button the appropriate source button on the Setpoint Source screen.

5. Touch **Save** to complete the change.

   Note: The change applies to all arbitrated setpoints.

From an Arbitrated Setpoint Screen

1. Touch the **Settings** button in the main menu area (Figure 2, p. 9). The Settings screen appears.

2. From the Settings screen, touch the **Chiller Settings** button. The Chiller Settings screen appears.

3. From the Chiller Settings screen, touch an arbitrated setpoint. The setpoint screen for that specific arbitrated setpoint appears (see the following figure for an example).

4. On the arbitrated setpoint screen, touch the Setpoint Source button. The Setpoint Source screen appears (refer to the preceding figure).

5. Touch the button the appropriate source button on the Setpoint Source screen.

6. Touch **Save** to complete the change.

   Note: The change applies to all arbitrated setpoints.

Figure 26. Changing the setpoint source from an arbitrated setpoint 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 11. Feature Settings menu screen: Buttons and available setting options

Ext Chilled Wtr Setpt Enable/Disable	Ext Current Limit Setpt Enable/Disable	Ice Building Enable/Disable
Ext Chilled Wtr Setpt Enable/Disable	Ext Current Limit Setpt Enable/Disable	Ice Building Enable/Disable
Hot Gas Bypass Feature Enable/Disable	Hot Gas Bypass Maximum Timer Enable Enable/Disable	
Security Enable/Disable	LCI-C Diagnostic Encoding Text/Code	
External Base Loading Setpoint Enable/Disable	Check Oil Filter Diagnostic Ckt1 Enable/Disable -or- Check Lube Filter Diagnostic Enable/Disable (CVHS Only)	Check Oil Filter Diagnostic Ckt2 Enable/Disable

Chilled Water Reset

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

Table 12. Chilled Water Reset menu screen: Buttons and available setting options

Buttons	Available setting options
Chilled Water Reset Type	• Disable • Return • Outdoor Air • Constant
Return Reset Ratio	Valid numerical range appears on screen.
Return Start Reset	Valid numerical range appears on screen.
Return Maximum Reset	Valid numerical range appears on screen.
Outdoor Reset Ratio	Valid numerical range appears on screen.
Outdoor Start Reset	Valid numerical range appears on screen.
Outdoor Maximum Reset	Valid numerical range appears on screen.

Purge Settings

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

Table 13. Purge Settings menu screen: Buttons and available setting options

Buttons	Available setting options
Purge Operating Mode ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	• Stop • Auto • Adaptive • On
Daily Pumpout Limit ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	Valid numerical range appears on screen.
Disable Daily Pumpout Limit ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	Valid numerical range appears on screen.
Purge Liquid Temperature Inhibit ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	• Enable • Disable
Purge Liquid Temperature Limit ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	Valid numerical range appears on screen.

Manual Control Settings

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

Table 14. Manual Control settings menu screen: Buttons, available setting options, and status points

Feature	Current value	Available setting options	Status points
Chiller Control Signal	Auto/Manual	Manual mode: Up/down arrows for changing the setpoint	• IGV1 Position (Simplex chillers only) • IGV2 Position (Simplex chillers only) • Average Line Current (Ckt1 and Ckt2 for Duplex chillers • AFD Frequency (Ckt1 and Ckt2 for Duplex chillers • Active Chilled Water Setpoint (Active Hot Water Setpoint if in Heating mode) • Evap Leaving Water Temp (Cond Leaving Water Temp if in Heating mode)
Evaporator Pump Override	On/Off	• Auto • On	• Evaporator Pump Manual Override Time Remaining • Evap Water Flow Switch Status • Active Chilled Water Setpoint • Evap Leaving Water Temp
Condenser Pump Override	On/Off	• Auto • On	• Condenser Pump Manual Override Time Remaining • Cond Water flow Switch Status • Active Hot Water Setpoint • Cond Leaving Water Temp

Table 14.   Manual Control settings menu screen: Buttons, available setting options, and status points (continued)

Feature	Current value	Available setting options	Status points
Clear Energy Consumption	XXXX kWh	• Simplex chillers only: Clear • Duplex chillers only: Energy Consumption Resettable Ckt1, Ckt2	• Starter Energy Consump. Resettable • Starter Energy Consump. Last Reset • Starter Energy Consump. NonReset
Oil Pump Control ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	On/Off	• Auto • On	• Oil Pump Manual Override Time Remaining • Oil Differential Pressure • Oil Pump Discharge Pressure • Oil Tank Pressure
Clear Restart Inhibit ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	XX:XX min:sec	• Clear	• Motor Temperature • Motor Winding Temp #1 • Motor Winding Temp #2 • Motor Winding Temp #3 • MTC Switch • Motor Coolant Temperature
Purge Exhaust Circuit Test ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	Auto/On	• Enable • Disable	• Purge Rfgt Cprsr Suction Temp • Purge Liquid Temp
Purge Regen Cycle ***Note:*** *Ckt1 and Ckt2 for Duplex chillers*	On/Off	• Auto • On	• Carbon Tank Temp
Front Panel Lockout ***Note:*** *Duplex chillers only; for Ckt1 and Ckt2.*		• Locked Out • Not Locked Out	• Chiller Top Level Mode • Top Level Operating Mode Ckt1 • Top Level Operating Mode Ckt2
Head Pressure Control Override	Cond Entering Water Temp XXX.X °F/C	Cond Leaving Water Temp	Cond Rfgt Pressure

Changing a Manual Control Setting

To change a manual control setting, follow this procedure:

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 27.   Manual Control Settings screen
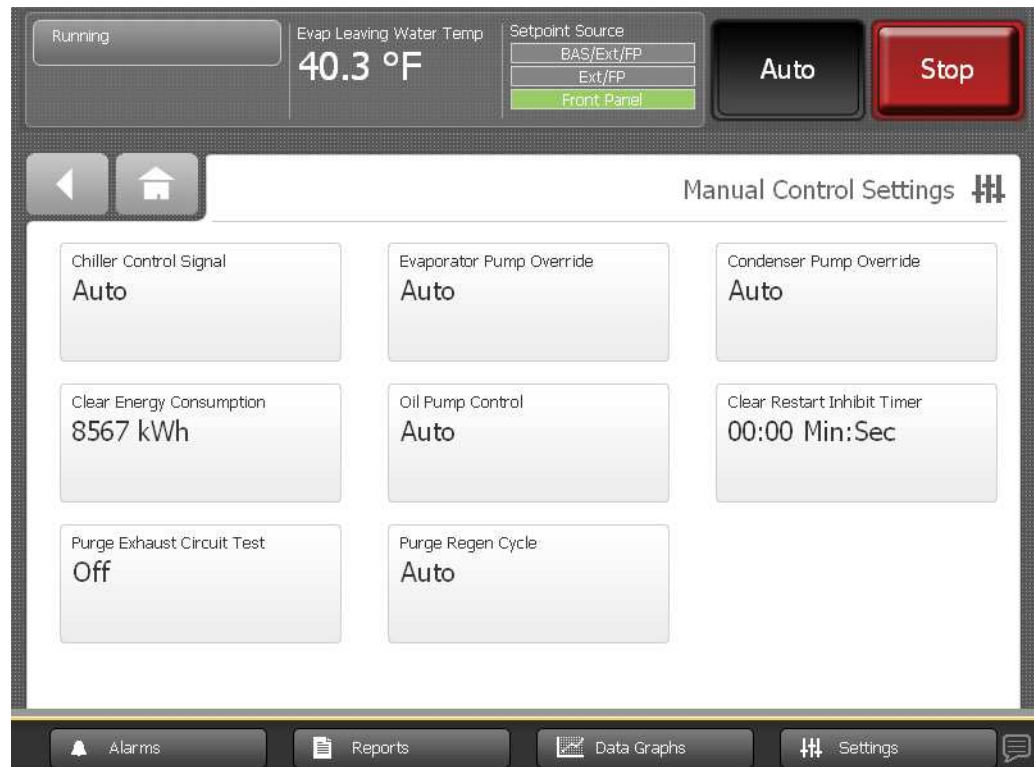
2. Touch the button that shows the manual control setting you want to change. A screen for changing the manual control setting appears as shown in the following figure.

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 Tracer® UC800 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 Tracer® UC800 controller. The screen you were previously viewing appears.

Figure 28.   Manual Control Settings screen (Evaporator Pump Override shown)

Display Settings

You can use the Tracer® AdaptiView™ display 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 (refer to "Screen Overview," p. 8) 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 Display

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

Figure 29.   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
- Brightness
- Unit System
- Pressure Units
- Backlight Timeout

Figure 30. Display Preferences screen
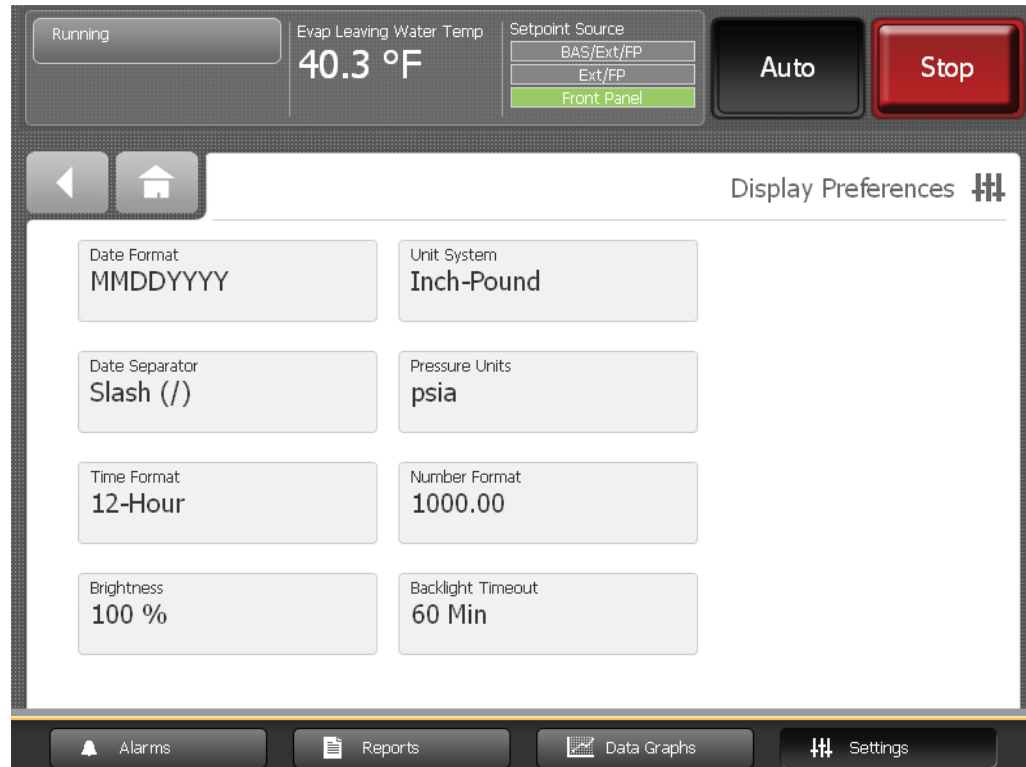
Each of the buttons in the previous figure shows the name of a display preference and its format (current value). Touch any of these buttons to view a screen where you can change the format. (Refer to the following figure for an example.) The button representing the format currently used is shaded (see the "MMDDYYYY" button.

Figure 31. Example of a display preference screen
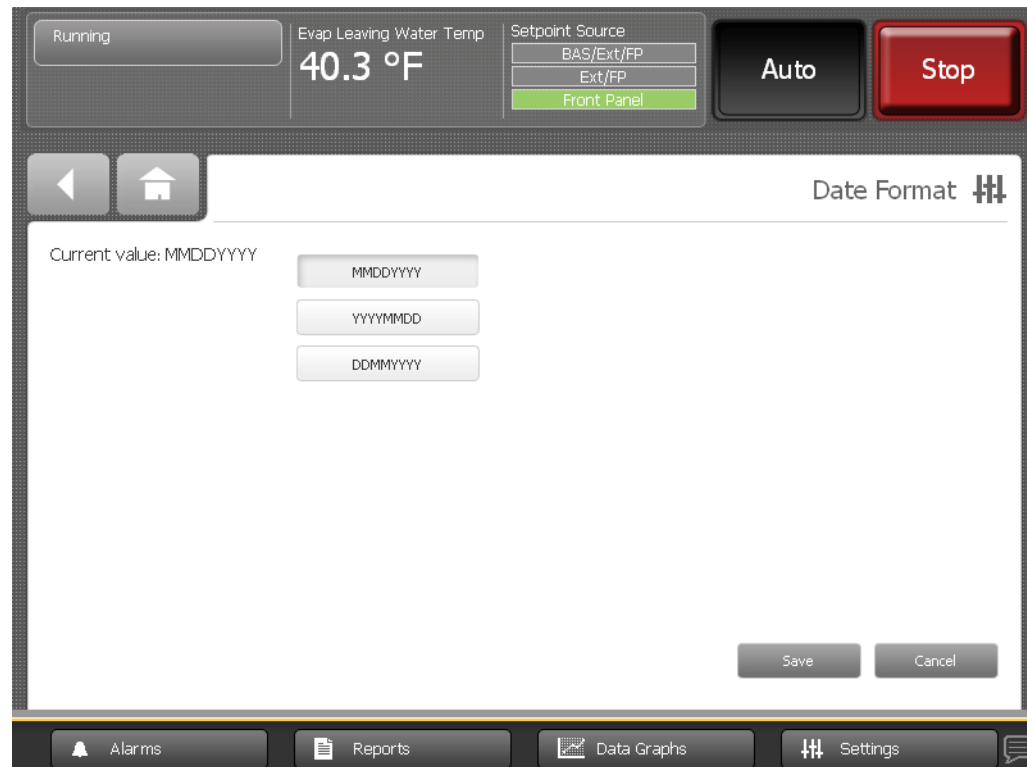
To change the format:

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

Brightness

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

Display Units

Use the Display Units screen to choose from the following display units:

- SI
- Inch-Pounds (default)

Pressure Units

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

- kPaA (default if "SI" is chosen for display units)
- kPaG
- psia (default if "Inch-Pound" is chosen for display units)
- psig

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 60 minutes.)

Viewing and Changing the Language Preference

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 32. Language screen
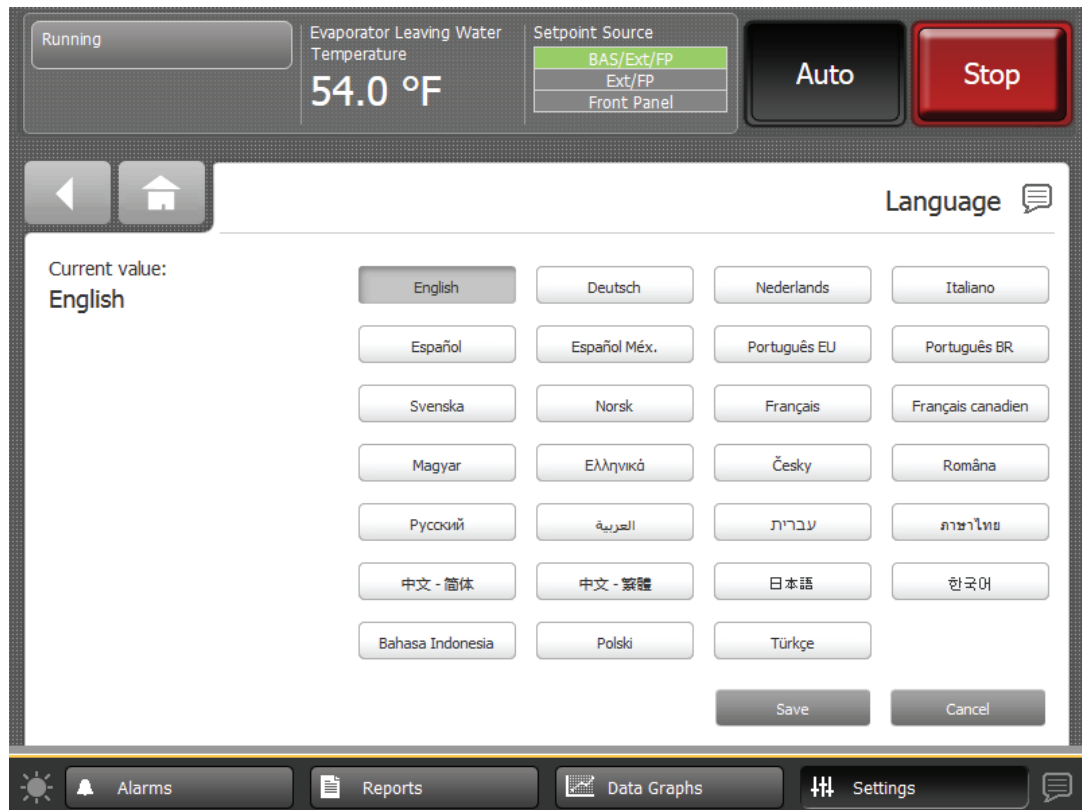
The language that is currently in use on the display is expressed as the current value on the Language screen. The button that displays the current value is shaded (refer to the "English" button in the previous figure as an example).

To change the language:

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 Preferences

On the Settings screen, touch **Date and Time** to view the Date and Time screen, shown in the following figure.

Figure 33.   Date and Time screen
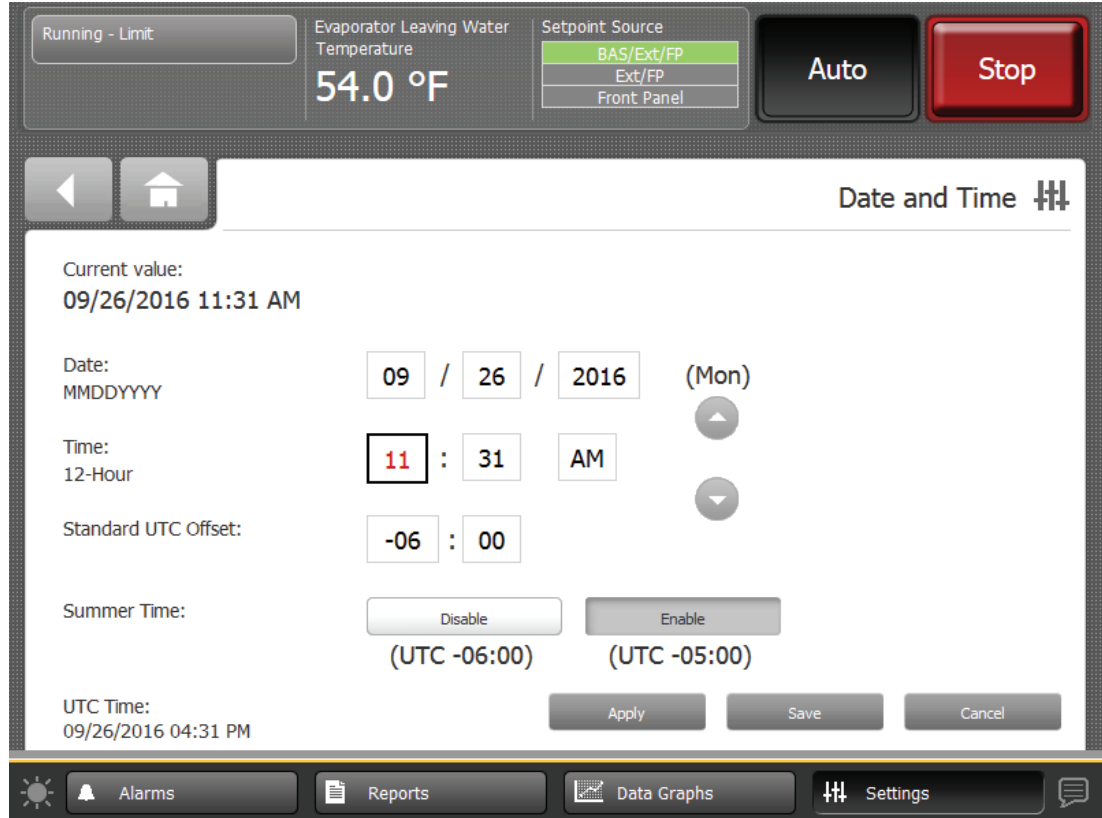
The current date and time for the display is expressed as the current value. The current value appears below the center line on the screen.

Above the center line, the following date and time attributes appear:

* Month
* Day
* Year
* Hour
* Minute
* AM/PM

To change the date or time:

1. Touch the square presenting the attribute you want to change. The square becomes highlighted.
2. Touch the up or down arrow key on the screen until the your desired selection appears. Repeat the process for any other attributes you want to change.
3. Touch **Save** to confirm your selection and return to the Settings screen.

Clean Touchscreen

On the Settings screen, touch **Clean Touchscreen** to disable the Tracer® AdaptiView™ display screen for 15 seconds so that you can clean the screen without it responding to touch. During this time, the screen is black with a number in the center that counts down the seconds. After 15 seconds, the Settings screen re-appears.

Figure 34. Countdown screen
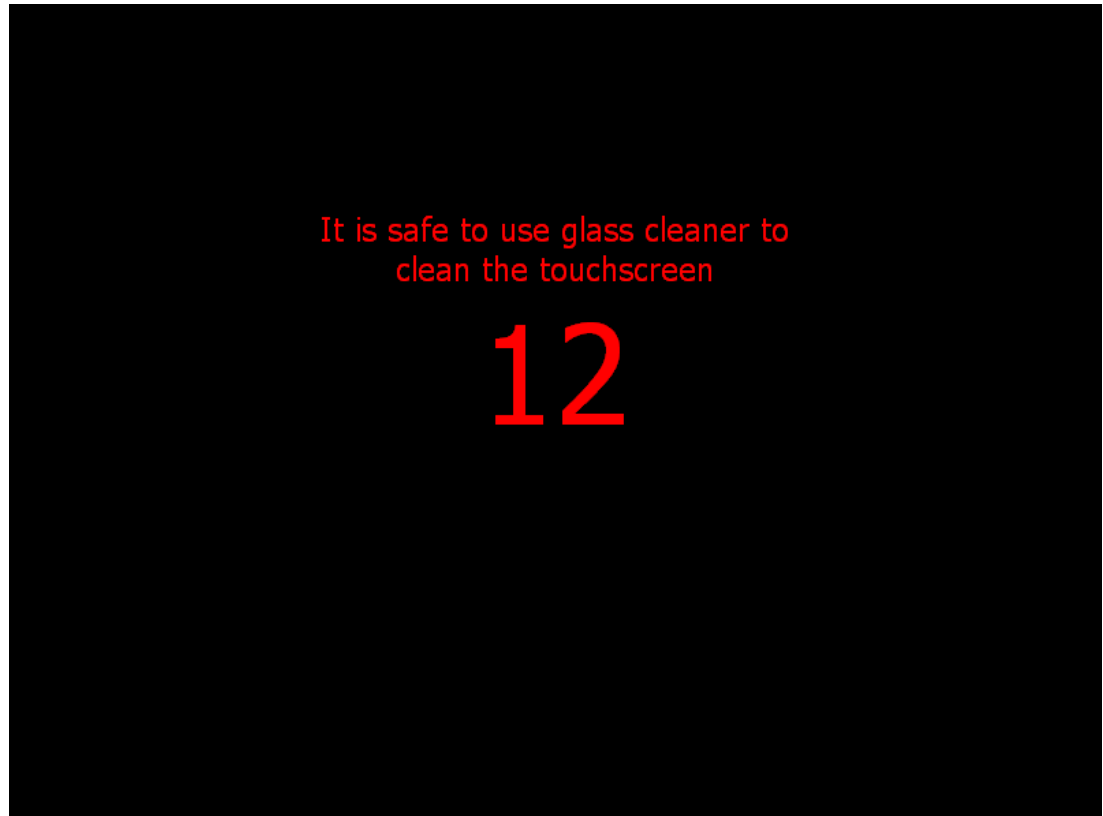
Security Settings

If security if enabled, the Tracer® AdaptiView™ display requires that you log in with a four-digit security PIN to make setting changes that are protected by security. This feature prevents unauthorized personnel from doing so. There are two levels of security, each allowing specific changes to be made.

You can view all data without logging in. The log-in screen appears only when you try to change a setting that is protected by security, or when you touch the **Log in** button from the Settings screen.
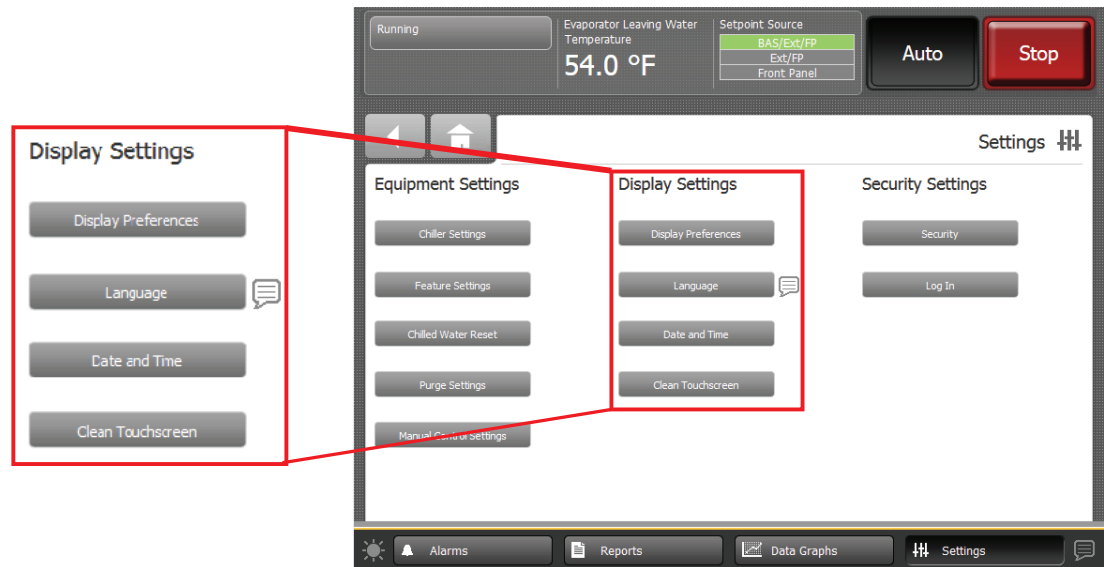
Settings Screen

Touch the **Settings** button in the main menu area (refer to "Screen Overview," p. 8) to view the Settings screen. *Security Settings* identifies a column on the right side of the screen that contains two buttons (see the outlined column in the following figure):

- Security
- Log in (Log out)

Figure 35. Equipment Settings screen with the Security Settings column highlighted
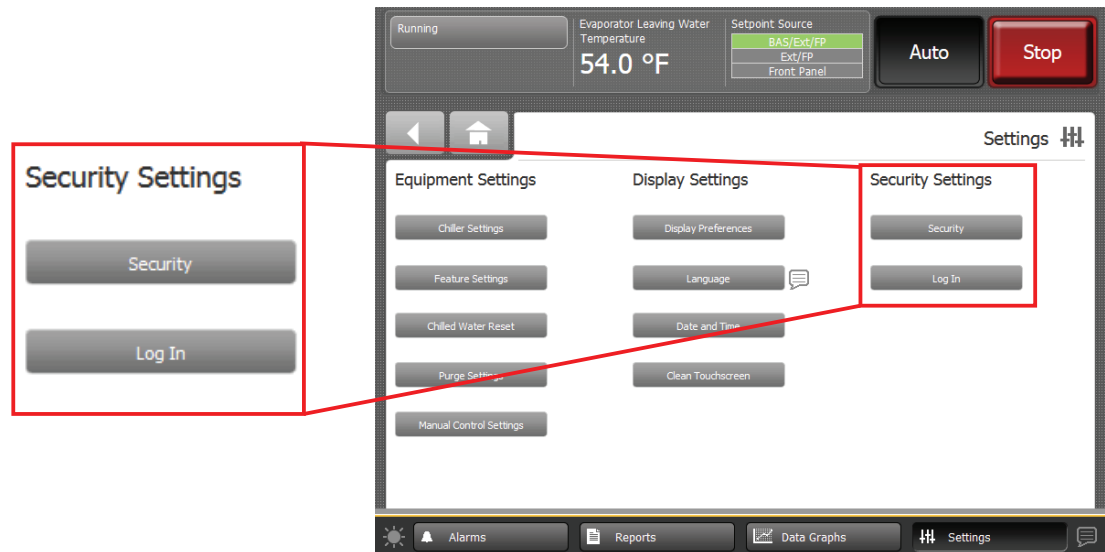
Note: If security is disabled, the Log in/Log out button is not visible. Refer to "Disabling Security," p. 58 and "Enabling Security," p. 59.

Disabling Security

You can disable the security feature that allows a user to log in and log out.

1. From the Settings screen, touch the **Security** button. The Security screen appears as shown in the following figure.

   Note: If you are logged out, the Log In screen appears. You must first log in to proceed.

Figure 36.   Security screen

2. Touch the **Disable** button. The button becomes shaded.
3. Touch **Save**. The Settings screen appears with only the Security button visible. The Log in/ Log out button is gone.

Enabling Security

To enable security, perform the following steps:

1. From the Settings screen, touch the **Security** button. The Security screen appears as shown in "Disabling Security," p. 58.
2. Touch the **Enable** button. The button becomes shaded.
3. Touch **Save**. The Settings screen appears with a Log out button in addition to the Security button.

Logging In

There are two levels of security:

*   Security Level 1 allows users to change a limited group of secure settings. The default security PIN is 1111.
*   Security Level 2 allows users to change all secure settings. The default security PIN is 7123.

A technician must use the Tracer® TU service tool to change a PIN.

To log in:

1. Touch the **Log In** button. The Log In screen appears as shown in the following figure.

Figure 37. Log In screen
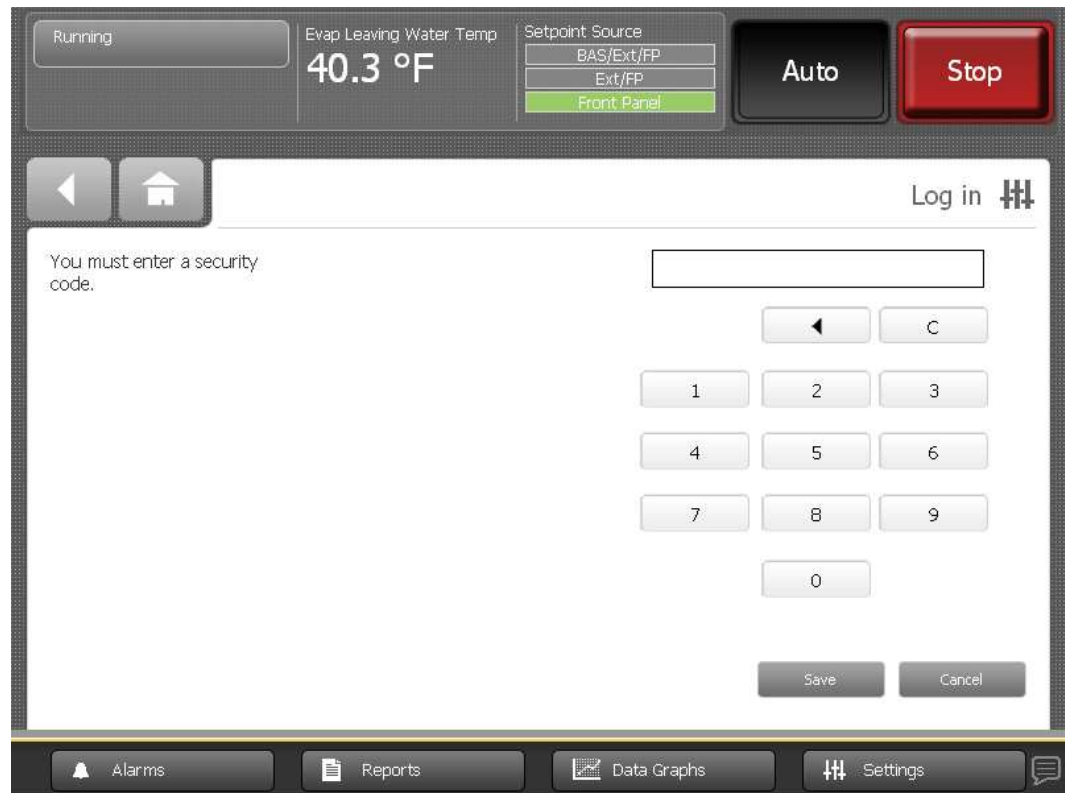
2. Use the keypad to enter your PIN.

   • The PIN is a four-digit number, which was configured for your system with the Tracer® TU service tool.

   • As you enter the number, the PIN remains hidden by asterisks.

   Note: If you enter an invalid PIN, an error message appears on the Log in screen.

3. Touch **Save**.

   • If you viewed the Log In screen from touching **Log In** on the Settings screen, the Settings screen appears with a **Log Out** button on it.

   • If the Log In screen appeared when you tried to change a setting, you return to that setting screen.

   Note: The PIN is valid until 30 minutes of inactivity passes, or until you log out.

Logging Out

To log out:

1. Touch the **Log Out** button. A confirmation screen appears as shown in the following figure.

Figure 38. Log Out confirmation screen
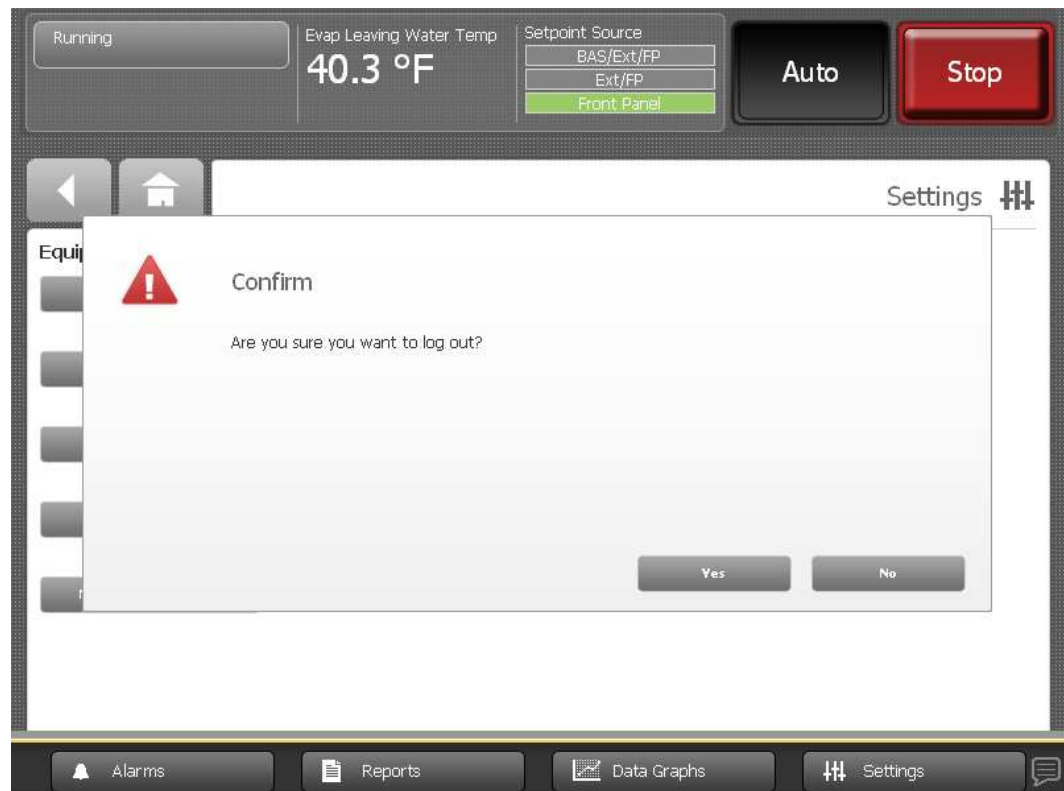
2. Touch **Yes** to confirm that you want to log out. The Settings screen appears with a **Log In** button on it.

LLID Binding

LLID binding screen provides the capability to bind and unbind LLIDs, similar to Tracer® TU. It can be disabled in the configuration.

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

Troubleshooting

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

Table 15. **Common error messages with possible causes and solutions**

Issue	Possible Causes/Solutions
The screen only partially displays; the Auto and Stop buttons appear, but there is no text.	The UC800 configuration is invalid. Download a valid configuration using the Tracer TU service tool.
The following error message appears: *UC800 Configuration is Invalid* *UC800 configuration must be updated with the Tracer TU technician utility*	Follow the error message instructions.
The following error message appears: *Communication lost with UC800* • *Check power and communication cables* • *Update the UC800 software with the Tracer TU technician utility*	Communication has been established and then lost, or the UC800 configuration is invalid. Follow the error message instructions.
The following error message appears: *Display Failed to Establish Communication* • *Check power and communication cables* • *Re-attempting connection in X seconds*	Communication is not established. • The Ethernet cable and/or the power cable may be disconnected. Check the connections. • The UC800 may have an invalid configuration. Download a valid configuration using the Tracer TU service tool.
The following error message appears: *[*Missing file name]* *UC800 software must be updated with the Tracer TU technician utility*	A file is missing. • The Tracer TU service tool is connected and the LLID binding screen is displayed. • UC800 has an invalid configuration. Download a valid configuration using the Tracer TU service tool. • Cycle power to the display and the UC800. Disconnect the USB cable and wait approximately 10 seconds before reconnecting the USB cable.

Appendix A: Data for CenTraVac Simplex Chillers

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

Component Screen Data

Chiller configuration determines which of the following settings and status points appear on the display. For more information, refer to "Component Screens," p. 14.

Table 16. Evaporator settings and status points (Simplex)

Active Chilled Water Setpoint (button links to the Active Chiller Water Setpoint screen)	Evaporator Rfgt Pressure
Evaporator Pump Override (button links to Evaporator Pump Override screen)	Evap Approach Temp
Evap Water Flow Status	Approx Evap Water Flow
Evap Leaving Water Temp	Evap Differential Wtr Press
Evap Entering Water Temp	Evaporator Entering Water Pressure
Calculated Chiller Capacity	Evaporator Leaving Water Pressure
Evaporated Saturated Rfgt Temp	

Table 17. Condenser settings and status points (Simplex)

Active Hot Water Setpoint (button links to the Active Hot Water Setpoint screen)	Approx Cond Water Flow
Cond Condenser Pump Override (button links to the Condenser Pump Override screen)	Cond Differential Wtr Press
Cond Water Flow Status	Second Condenser Lvg Wtr Temp
Cond Entering Water Temp	Second Condenser Ent Wtr Temp
Cond Leaving Water Temp	Head Pressure Control Status
Outdoor Air Temp	Differential Refrigerant Pressure
Condenser Sat Rfgt Temp	Refrigerant Monitor
Condenser Refrigerant Pressure	Condenser Entering Water Pressure
Condenser Refrigerant Liquid Level	Condenser Leaving Water Pressure
Condenser Approach Temperature	Economizer Bypass Valve Position

Table 18. Compressor settings and status points (Simplex)

Compressor Running Status	IGV 2 Percent Open
Chiller Control Signal	IGV 2 Position (Steps)
Oil Pump Control	Compressor Rfgt Discharge Temp
Average Line Current (%RLA)	HGBP Time
Oil Pump Status	Oil Differential Pressure Switch (CVG, CVR Only)
Oil Differential Pressure	Lube Differential Pressure (CVHS Only)
Compressor Starts	Lube Pump Discharge Pressure (CVHS Only)
Compressor Running Time	Lube Pump Suction Pressure (CVHS)
Oil Pump Discharge Pressure	Cond Rfgt Pressure

Table 18. Compressor settings and status points (Simplex) (continued)

Oil Tank Pressure	Lube Pump Command (CVHS)
Oil Tank Temperature	Lube Flow First Stage Bearing (CVHS)
Inboard Bearing Temperature	Lube Flow Second Stage Bearing (CVHS)
Outboard Bearing Temperature	Outboard Bearing Pad Temperature #1 (CVHH Only)
IGV 1 Percent Open	Outboard Bearing Pad Temperature #2 (CVHH)
IGV 1 Position (Steps)	Outboard Bearing Pad Temperature #3 (CVHH)

Table 19. Motor settings and status points (Simplex)

Active Current Limit Setpoint (button links to Active Current Limit Setpoint screen)	AFD Motor Current U % RLA
Average Motor Current (%RLA)	AFD Motor Current V % RLA
ADF Frequency or Generator Frequency Command (based on configuration)	AFD Motor Current W % RLA
Starter Motor Current L1 (%RLA)	AFD Motor Current U
Starter Motor Current L2 (%RLA)	AFD Motor Current V
Starter Motor Current L3 (%RLA)	AFD Motor Current W
Starter Motor Current L1 (A)	AFD Input Current L1
Starter Motor Current L2 (A)	AFD Input Current L2
Starter Motor Current L3 (A)	AFD Input Current L3
Starter Input Voltage Phase AB	AFD Average Motor Voltage
Starter Input Voltage Phase BC	AFD Average Input Voltage
Starter Input Voltage Phase CA	AFD Motor Voltage UV
Motor Winding Temp 1	AFD Motor Voltage VW
Motor Winding Temp 2	AFD Motor Voltage WU
Motor Winding Temp 3	AFD DC Bus Voltage
AFD Speed	AFD DC Bus Current
AFD Transistor Temp	AFD Calculated Input Voltage
Starter Energy Consumption Resettable	AFD Output Power
Starter Energy Consumption Last Reset	AFD Average Input Current
Starter Energy Consump Non Reset	Motor Speed
Starter Power Demand	Motor Frequency
Starter Load Power Factor	

Table 20. Purge settings and status points (Simplex)

Purge Top Level Mode (button links to Purge Operating Modes screen	Pumpout Chiller On—7 days
Purge Regen Cycle (button links to Purge Regen Cycle screen)	Pumpout Chiller Off—7 days
Purge Fault Indicator (button links to Alarms screen)	Time Until Next Purge Run
Daily Pumpout—24 Hours	Purge Rfgt Compressor Suction Temp
Average Daily Pumpout—7 Days	Purge Liquid Temperature

Table 20. Purge settings and status points (Simplex) (continued)

Daily Pumpout Limit/Alarm	Pumpout—Life
Chiller On—7 Days	Purge Carbon Tank Temp

Reports

The following data can be viewed on the Reports screen. For more information, refer to

Log Sheet

Table 21. Evaporator report data

Report item	Unit
Evaporator Entering Water Temperature	XXX.X °F/°C
Evaporator Leaving Water Temp	XXX.X °F/°C
Evaporator Sat Rfgt Temp	XXX.X °F/°C
Evaporator Rfgt Pressure	XXX.X PSI/kPa
Evaporator Approach Temp	XXX.X °F/°C
Evaporator Water Flow Switch Status	Flow/No Flow

Table 22. Condenser report data

Report item	Unit
Cond Entering Water Temp	XXX.X °F/°C
Cond Leaving Water Temp	XXX.X °F/°C
Cond Sat Rfgt Temp	XXX.X °F/°C
Cond Rfgt Pressure	XXX.X PSI/kPa
Cond Approach Temp	XXX.X °F/°C
Cond Water Flow Switch Status	Flow/No Flow
Cond Rfgt Liquid Level	XX.XX in/mm

Table 23. Compressor report data

Report item	Unit
Starts	XXXX Starts
Running Time	XX:XX Hr:Min
Oil Tank Pressure	XXX.X PSI/kPa
Oil Pump Discharge Pressure	XXX.X PSI/kPa
Oil Differential Pressure	XXX.X PSI/kPa
Oil Tank Temperature	XXX.X °F/°C
IGV 1 Position	XXX.X %
Oil Diff Pressure Switch (CVGF, CVR)	XXX.X PSI/kPa
Lube Pump Discharge Pressure (CVHS)	XXX.X PSI/kPa
Cond Rfgt Pressure (visible only with CVHS)	XXX.X PSI/kPa
IGV 1 Position	Steps

Table 23.   Compressor report data (continued)

Report item	Unit
IGV 2 Position	XXX.X %
IGV 2 Position	Steps

Table 24.   Motor report data

Report item	Unit
Starter Current L1	XXX.X %
Starter Current L2	XXX.X %
Starter Current L3	XXX.X %
Starter Current L1	XXXX A
Starter Current L2	XXXX A
Starter Current L3	XXXX A
Starter Voltage AB	XXXXX.X V
Starter Voltage BC	XXXXX.X V
Starter Voltage CA	XXXXX.X V
Starter Power Demand	XXXX kW
Starter Load Power Factor	XX.X
Motor Winding Temp 1	XXX.X °F/°C
Motor Winding Temp 2	XXX.X °F/°C
Motor Winding Temp 3	XXX.X °F/°C
AFD Frequency	XX Hz
AFD Speed	XXXX RPM
AFD Transistor Temp	XXX.X °F/°C
AFD Motor Current U % RLA	XXX.X %RLA
AFD Motor Current V % RLA	XXX.X %RLA
AFD Motor Current W % RLA	XXX.X %RLA
AFD Motor Current U	XXXX Amps
AFD Motor Current V	XXXX Amps
AFD Motor Current W	XXXX Amps
AFD Motor Voltage UV	XXXXX.X Volts
AFD Motor Voltage VW	XXXXX.X Volts
AFD Motor Voltage WU	XXXXX.X Volts
Starter Input Power Consumption	XXXXX kWh
Starter Motor Power Factor	XXX.X

Table 25.   Purge report data

Report item	Unit
Time Until Next Purge Run	XXX.X min
Daily Pumpout—24 Hours	XXX.X min

Table 25. Purge report data (continued)

Report item	Unit
Average Daily Pumpout—7 Days	XXX.X min
Daily Pumpout Limit	XXX.X min
Chiller On—7 Days	XXX.X min
Pumpout Chiller On—7 Days	XXX.X min
Pumpout Chiller Off—7 Days	XXX.X min
Pumpout—Life	XXX.X min
Purge Rfgt Compressor Suction Temp	XXX.X °F/°C
Purge Liquid Temp	XXX.X °F/°C
Purge Carbon Tank Temp	XXX.X °F/°C

ASHRAE Chiller Log

> *Note:* *The ASHRAE Chiller Log contains those items recommended by ASHRAE Std 147 Standard 147-2002, Reducing Release of Halogenated Refrigerants from Refrigeration and Air-Conditioning Equipment and Systems.*

Table 26. ASHRAE Chiller Log data

Data Name	Value
Current Date/Time	User-selected date/time format
Chiller Top Level Mode	Running /Stopped / Run Inhibit / Auto / etc.
Starter Motor Current L1	XXX.X A
Starter Motor Current L2	XXX.X A
Starter Motor Current L3	XXX.X A
AFD Motor Current U	XXXX A
AFD Motor Current V	XXXX A
AFD Motor Current W	XXXX A
AFD Motor Voltage UV	XXXX v
AFD Motor Voltage VW	XXXX v
AFD Motor Voltage WU	XXXX v
Starter Input Voltage AB	XXXX.X v
Starter Input Voltage BC	XXXX.X v
Starter Input Voltage CA	XXXX.X v
Active Chilled Water Setpoint	XXX.X °F/C
Active Current Limit Setpoint	XXX.X %
Refrigerant Type	XXXXX
Refrigerant Monitor	XXX ppm
Daily Pumpout - 24 Hours	XX:XX Min:Sec
Daily Pumpout Limit	XXX Min
Pumpout - Life	XXX:XX Min:Sec
Purge Top Level Mode	On/Auto/Adaptive/Stop

Table 26. ASHRAE Chiller Log data (continued)

Data Name	Value
Purge Mode	On/Auto/Adaptive/Stop
Compressor Starts	XXXX
Compressor Running Time	XX:XX Hr:Min
Compressor Refrigerant Discharge Temperature*	XXX.X °F/C
Oil Pump Discharge Pressure	XXX.X PSIA/kPaA
Oil Tank Pressure	XXX.X PSIA/kPaA
Oil Differential Pressure	XXX.XX PSID/kPaD
Oil Diff Pressure Switch (CVGF, CVR only)	Flow/No Flow
Lube Pump Discharge Pressure (CVHS)	XXX.X PSIA/kPaA
Cond Rfgt Pressure (visible only with CVHS)	XXX.X PSIA/kPaA
Lube Differential Pressure (CVHS)	XXX.XX PSID/kPaD
Lube Pump Suction Pressure (CVHS)	XXX.X PSIA/kPaA
Oil Tank Temperature	XXX.X °F/C
Inboard Bearing Temp	XXX.X °F/C
Outboard Bearing Temp	XXX.X °F/C
Daily Pumpout - 24 Hours	XX:XX Min:Sec
Daily Pumpout Limit	XXX Min
Pumpout - Life	XXX:XX Min:Sec
Purge Top Level Mode	On/Auto/Adaptive/Stop
Purge Mode	On/Auto/Adaptive/Stop
Compressor Starts	XXXX
Compressor Running Time	XX:XX Hr:Min
Compressor Refrigerant Discharge Temperature*	XXX.X °F/C
Oil Pump Discharge Pressure	XXX.X PSIA/kPaA
Oil Tank Pressure	XXX.X PSIA/kPaA
Oil Differential Pressure	XXX.XX PSID/kPaD
Oil Diff Pressure Switch (CVGF, CVR only)	Flow/No Flow
Lube Pump Discharge Pressure (CVHS)	XXX.X PSIA/kPaA
Cond Rfgt Pressure (visible only with CVHS)	XXX.X PSIA/kPaA
Lube Differential Pressure (CVHS)	XXX.XX PSID/kPaD
Lube Pump Suction Pressure (CVHS)	XXX.X PSIA/kPaA
Oil Tank Temperature	XXX.X °F/C

Table 26. ASHRAE Chiller Log data (continued)

Data Name	Value
Inboard Bearing Temp	XXX.X °F/C
Outboard Bearing Temp	XXX.X °F/C
Evaporator Entering Water Temperature	XXX.X °F/C
Evaporator Leaving Water Temperature	XXX.X °F/C
Evap Sat Rfgt Temp	XXX.X °F/C
Evap Rfgt Pressure	XXX.X PSIA/kPaA
Evap Approach Temp	XXX.X °F/C
Evap Water Flow Status	Flow/No Flow
Evap Differential Wtr Press	XXX.XX PSID/kPaD
Approx Evap Water Flow	XXX.X gpm/lpm
Calculated Chiller Capacity	XXX.X tons/kW
Cond Entering Water Temp	XXX.X °F/C
Cond Leaving Water Temp	XXX.X °F/C
Cond Sat Rfgt Temp	XXX.X °F/C
Cond Rfgt Pressure	XXX.X PSIA/kPaA
Cond Approach Temp	XXX.X °F/C
Cond Water Flow Status:	Flow/No Flow
Cond Differential Wtr Press	XXX.XX PSID/kPaD
Approx Cond Water Flow	XXX.X gpm/lpm
Second Condenser Ent Wtr Temp	XXX.X °F/C
Second Condenser Lvg Wtr Temp	XXX.X °F/C

Items Available to Include in Custom Reports

Table 27. Chiller data

Controller Build Part Number	Ice Building Active
Version	Refrigerant Monitor
Chiller Heating or Cooling Mode	Chiller Top Level Mode
Chiller Heating or Cooling Mode	

Table 28. Evaporator data

Active Chilled Water Setpoint	Evaporator Leaving Water Temperature
Active Chilled Water Setpoint Source	Evaporator Pump Override
Active Ice Termination Setpoint	Evaporator Pump Override Time Remaining
Active Ice Termination Setpoint Source	Evap Rfgt Pressure
Calculated Chiller Capacity	Evap Sat Rfgt Temp
Approx Evap Water Flow	Evap Water Flow Status
BAS Chilled Water Setpoint	Ext Chilled Wtr Setpt

Table 28.   Evaporator data (continued)

Evap Approach Temp	Front Panel Ice Building Command
Evap Differential Wtr Press	Evaporator Entering Water Pressure
Evaporator Entering Water Temperature	Evaporator Leaving Water Pressure

Table 29.   Condenser data

Active Hot Water Setpoint	Second Condenser Lvg Wtr Temp
Active Hot Water Setpoint Source	Condenser Pump Override Time Remaining
Approx Cond Water Flow	Condenser Pump Override
Cond Approach Temp	Differential Refrigerant Pressure
Cond Differential Wtr Press	Head Pressure Control Status
Cond Entering Water Temp	Condenser Entering Water Pressure
Cond Leaving Water Temp	Condenser Leaving Water Pressure
Cond Rfgt Pressure	Condenser Refrigerant Liquid Level Ckt1
Cond Sat Rfgt Temp	Economizer Bypass Valve Position Ckt1
Cond Water Flow Status	Condenser Refrigerant Liquid Level Ckt2
Outdoor Air Temp	Economizer Bypass Valve Position Ckt2
Second Condenser Ent Wtr Temp	

Table 30.   Compressor data

Chiller Control Signal	Oil Pump Control
Active Base Loading Setpoint	Oil Pump Command
Active Base Loading Setpoint Source	Oil Pump Discharge Pressure
Compressor Refrigerant Discharge Temperature	Oil Pump Override Time Remaining
Compressor Running	Lube Differential Pressure (CVHS)
Compressor Running Time	Lube Pump Control (CVHS)
Compressor Starts	Lube Pump Command (CVHS)
Hot Gas Bypass Total Time	Lube Pump Discharge Pressure (CVHS)
IGV1 Position	Lube Pump Override Time Remaining (CVHS)
IGV1 Position Steps	Lube Pump Suction Pressure (CVHS)
IGV2 Position	Oil Tank Temperature
IGV2 Position Steps	Lube Flow First Stage Bearing (CVHS)
IGV Closed Switch	Lube Flow Second Stage Bearing (CVHS)
Oil Tank Pressure	Inboard Bearing Temp
Oil Differential Pressure	Outboard Bearing Temp

Table 30.   Compressor data (continued)

Oil Differential Pressure Switch (CVGF, CVR only)	Outboard Bearing Pad Temperature #1
Oil Heater Command	Outboard Bearing Pad Temperature #2
Oil Heater Command 4E1	Outboard Bearing Pad Temperature #3
Oil Heater Command 4E2	Compressor Vibration

Table 31.   Motor data

Active Current Limit Setpoint	Motor Winding Temp #1
Active Current Limit Setpoint Source	Motor Winding Temp #2
BAS Current Limit Setpoint	Motor Winding Temp #3
Starter Input Power Consumption	AFD Average Input Current
Starter Power Demand	AFD Input Current L1
Starter Motor Power Factor	AFD Input Current L2
Motor Speed	AFD Input Current L3
Motor Frequency	AFD Input Frequency
Speed Command RPM	AFD Average Motor Voltage
Speed Command (CVHS)	AFD Calculated Input Voltage
Average Motor Current % RLA	AFD DC Bus Voltage
Electro-Mech. Phase Unbalance	AFD DC Bus Current
Ext Current Limit Setpt	AFD Output Power
Frequency Command	AFD Ground Current
Speed Signal	AFD Inverter Base Temp
Motor Coolant Temperature	AFD Rectifier Base Temp
MTC Switch	AFD Transistor Temp
Restart Inhibit Time (MP)	AFD Motor Current U % RLA
Starter Average Phase Voltage	AFD Motor Current V % RLA
Starter Motor Current L1 % RLA	AFD Motor Current W % RLA
Starter Motor Current L1	AFD Motor Current U
Starter Motor Current L2 % RLA	AFD Motor Current V
Starter Motor Current L2	AFD Motor Current W
Starter Motor Current L3 % RLA	AFD Motor Voltage UV
Starter Motor Current L3	AFD Motor Voltage VW
Starter Energy Consump. NonReset	AFD Motor Voltage WU
Starter Energy Consump. Resettable	AFD Average Input Voltage
Starter Energy Consump. Last Reset	AFD Inverter Module Temp U
Starter Input Voltage AB	AFD Inverter Module Temp V
Starter Input Voltage BC	AFD Inverter Module Temp W
Starter Input Voltage CA	AFD Total Demand Distortion
Motor Temperature	

Table 32.   Purge data

Average Daily Pumpout-7 Days	Carbon Tank Temp
Carbon Regen Cycles	Purge Liquid Temp
Chiller On-7 Days	Purge Rfgt Cprsr Suction Temp
Daily Pumpout-24 Hours	Time at Last Regeneration
Pumpout Chiller Off-7 Days	Time Until Next Purge Run
Pumpout Chiller On-7 Days	Purge Top Level Mode
Pumpout-Life	

Data Graph Data Points

This subsection contains:

- Data points used in the default data graphs, organized by graph
- Data points available to include in custom data graphs, organized by component

Data Points Used in Default Data Graphs

Table 33.   Chiller overview 1

Graph data point	Axis
Active Chilled Water Setpoint	Left Y-axis
Active Hot Water Setpoint	Left Y-axis
Evaporator Leaving Evaporator Temperature	Left Y-axis
Evaporator Entering Water Temperature	Left Y-axis
Condenser Leaving Water Temperature	Left Y-axis
Condenser Entering Water Temperature	Left Y-axis
Calculated Chiller Capacity	Right Y-axis

Table 34.   Chiller overview 2

Graph data point	Axis
Average Motor Current % RLA	Left Y-axis
Motor Frequency	Left Y-axis
Oil Differential Pressure	Left Y-axis
Frequency Command	Left Y-axis
Lube Differential Pressure (CVHS)	Left Y-axis
Speed Command (CVHS)	Right Y-axis

Table 35.   Approach temperature

Graph data point	Axis
Evaporator Approach Temperature	Left Y-axis
Condenser Approach Temperature	Left Y-axis
Approximate Evaporator Water Flow	Right Y-axis

Table 35. Approach temperature (continued)

Graph data point	Axis
Approximate Condenser Water Flow	Right Y-axis
Average Motor Current % RLA	Right Y-axis

Table 36. Evaporator

Graph data point	Axis
Active Chilled Water Setpoint	Left Y-axis
Evaporator Leaving Water Temperature	Left Y-axis
Evaporator Entering Water Temperature	Left Y-axis
Evaporator Saturated Refrigerant Temperature	Left Y-axis
Approximate Evaporator Water Flow	Right Y-axis

Table 37. Motor

Graph data point	Axis
Starter Motor Current L1 % RLA	Left Y-axis
Starter Motor Current L2 % RLA	Left Y-axis
Starter Motor Current L3 % RLA	Left Y-axis
Average Motor Current % RLA	Left Y-axis
Starter Input Voltage AB	Right Y-axis
Starter Input Voltage BC	Right Y-axis
Starter Input Voltage CA	Right Y-axis
AFD Motor Current U % RLA	Left Y-axis
AFD Motor Current V % RLA	Left Y-axis
AFD Motor Current W % RLA	Left Y-axis
AFD Motor Voltage UV	Right Y-axis
AFD Motor Voltage VW	Right Y-axis
AFD Motor Voltage WU	Right Y-axis

Table 38. Motor temperature

Graph data point	Axis
Motor Winding Temperature 1	Left Y-axis
Motor Winding Temperature 2	Left Y-axis
Motor Winding Temperature 3	Left Y-axis
AFD Transistor Temperature	Left Y-axis

Table 39. Condenser

Graph data point	Axis
Active Hot Water Setpoint	Left Y-axis
Condenser Leaving Water Temperature	Left Y-axis
Condenser Entering Water Temperature	Left Y-axis

Table 39. Condenser (continued)

Graph data point	Axis
Condenser Saturated Refrigerant Temperature	Left Y-axis
Approximate Condenser Water Flow	Right Y-axis

Table 40. Compressor

Graph data point	Axis
Average Line Current	Left Y-axis
Active Current Limit Setpoint	Left Y-axis
AFD Frequency	Left Y-axis
IGV 1 Position	Left Y-axis
Chiller Control Signal	Left Y-axis
Compressor Refrigerant Discharge Temperature	Right Y-axis

Table 41. Purge

Graph data point	Axis
Daily Pumpout—24 Hours	Left Y-axis
Pumpout Chiller On—7 Days	Left Y-axis
Pumpout Chiller Off—7 Days	Left Y-axis
Purge Average Daily Pumpout—7 Days	Right Y-axis
Purge Refrigerant Compressor Suction Temperature	Right Y-axis
Purge Liquid Temperature	Right Y-axis

Table 42. Oil system

Graph data point	Axis
Oil Differential Pressure	Left Y-axis
Oil Tank Pressure	Left Y-axis
Oil Pump Discharge Pressure	Left Y-axis
Oil Tank Temperature	Right Y-axis
Outboard Bearing Temperature	Right Y-axis
Inboard Bearing Temperature	Right Y-axis

Table 43. Lube system

Graph data point	Axis
Lube Differential Pressure	Left Y-axis
Lube Pump Discharge Pressure	Left Y-axis
Cond Rfgt Pressure	Left Y-axis
Lube Pump Suction Pressure	Left Y-axis
Lube Flow First Stage Bearing	Right Y-axis
Lube Flow Second Stage Bearing	Right Y-axis

Data Points in Custom Data Graphs

Table 44.   Evaporator

Active Chilled Water Setpoint	Approx Evap Water Flow
Evaporator Leaving Water Temperature	Evap Differential Wtr Press
Evaporator Entering Water Temperature	Calculated Chiller Capacity
Evap Sat Rfgt Temp	Evap Approach Temp
Evap Rfgt Pressure	Active Ice Termination Setpoint

Table 45.   Compressor

Chiller Control Signal	Inboard Bearing Temp
Oil Tank Pressure	Outboard Bearing Temp
Oil Pump Discharge Pressure	Outboard Bearing Pad Temperature #1
Oil Differential Pressure	Outboard Bearing Pad Temperature #2
Lube Pump Suction Pressure (CVHS)	Outboard Bearing Pad Temperature #3
Lube Pump Discharge Pressure (CVHS)	IGV1 Position (%)
Lube Differential Pressure (CVHS)	IGV2 Position (%)
Oil Tank Temperature	Compressor Refrigerant Discharge Temperature
Lube Flow First Stage Bearing (CVHS)	Compressor Vibration
Lube Flow Second Stage Bearing (CVHS)	

Table 46.   Condenser

Active Hot Water Setpoint	Cond Approach Temp
Cond Leaving Water Temp	Approx Cond Water Flow
Cond Entering Water Temp	Cond Differential Wtr Press
Cond Sat Rfgt Temp	Second Condenser Lvg Wtr Temp
Outdoor Air Temp	Second Condenser Ent Wtr Temp
Refrigerant Monitor	Differential Refrigerant Pressure
Cond Rfgt Pressure	Head Pressure Control Status

Table 47.   Motor

Active Current Limit Setpoint	AFD Input Current L1
Average Motor Current %RLA	AFD Input Current L2
Motor Frequency	AFD Input Current L3
Speed Command (CVHS)	AFD Input Frequency
Starter Motor Current L1 % RLA	AFD Average Motor Voltage
Starter Motor Current L2 % RLA	AFD DC Bus Voltage
Starter Motor Current L3 % RLA	AFD DC Bus Current

Table 47. Motor (continued)

Starter Motor Current L1	AFD Output Power
Starter Motor Current L2	AFD Ground Current
Starter Motor Current L3	AFD Inverter Base Temp
Starter Input Voltage AB	AFD Rectifier Base Temp
Starter Input Voltage BC	AFD Transistor Temp
Starter Input Voltage CA	AFD Motor Current U % RLA
Motor Winding Temp #1	AFD Motor Current V % RLA
Motor Winding Temp #2	AFD Motor Current W % RLA
Motor Winding Temp #3	AFD Motor Voltage UV
Motor Temperature	AFD Motor Voltage VW
Motor Coolant Temperature	AFD Motor Voltage WU
Starter Input Power Consumption	AFD Average Input Voltage
Starter Power Demand	AFD Inverter Module Temp U
Starter Motor Power Factor	AFD Inverter Module Temp V
Starter Average Phase Voltage	AFD Inverter Module Temp W
Frequency Command	AFD Total Demand Distortion
AFD Average Input Current	

Table 48. Purge

Daily Pumpout—24 Hours	Purge Rfgt Cprsr Suction Temp
Pumpout Chiller On—7 Days	Purge Liquid Temp
Pumpout Chiller Off—7 Days	Carbon Tank Temp
Purge Average Daily Pumpout—7 Days	

Appendix B: Data for CenTraVac Duplex Chillers

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

Component Screen Data

Chiller configuration determines which of the following settings and status points appear on the display. For more information, refer to "Component Screens," p. 14.

Table 49. Evaporator settings and status points

Active Chilled Water Setpoint (button links to the Active Chiller Water Setpoint screen)	Evaporator Rfgt Pressure (Ckt1 and Ckt2)
Evaporator Pump Override (button links to Evaporator Pump Override screen)	Evap Approach Temp (Ckt1 and Ckt2)
Evap Water Flow Status	Approx Evap Water Flow
Evap Leaving Water Temp	Evap Differential Wtr Press
Evap Entering Water Temp	Evap Entering Water Press
Calculated Chiller Capacity	Evap Leaving Water Press
Evaporator Saturated Rfgt Temp (Ckt1 and Ckt2)	

Table 50. Condenser settings and status points

Active Hot Water Setpoint (button links to the Active Hot Water Setpoint screen)	Condenser Approach Temperature (Ckt1 and Ckt2)
Condenser Pump Override (button links to the Condenser Pump Override screen)	Approx Cond Water Flow
Cond Water Flow Status	Cond Differential Wtr Press
Cond Entering Water Temp	Second Condenser Lvg Wtr Temp
Cond Leaving Water Temp	Second Condenser Ent Wtr Temp
Outdoor Air Temp	Cond Entering Water Press
Condenser Refrigerant Pressure (Ckt1 and Ckt2)	Cond Leaving Water Press

Table 51. Compressor settings and status points

Compressor Running (Ckt1 and Ckt2)	Inboard Bearing Temperature (Ckt1 and Ckt2)
Chiller Control Signal	Outboard Bearing Temperature (Ckt1 and Ckt2)
Oil Pump Control (Ckt1 and Ckt2)	IGV 1 Percent Open (Ckt1 and Ckt2)
Average Motor Current %RLA (Ckt1 and Ckt2)	IGV 1 Position (Steps) (Ckt1 and Ckt2)
Compressor Starts (Ckt1 and Ckt2)	IGV 2 Percent Open (Ckt1 and Ckt2)
Oil Pump Status (Ckt1 and Ckt2)	IGV 2 Position (Steps) (Ckt1 and Ckt2)
Oil Differential Pressure (Ckt1 and Ckt2)	Compressor Rfgt Discharge Temp (Ckt1 and Ckt2)
Compressor Running Time (Ckt1 and Ckt2)	Outboard Bearing Pad Temperature #1 CktX (for CDHH)
Oil Pump Discharge Pressure (Ckt1 and Ckt2)	Outboard Bearing Pad Temperature #2 CktX (for CDHH)
Oil Tank Pressure (Ckt1 and Ckt2)	Outboard Bearing Pad Temperature #3 CktX (for CDHH)
Oil Tank Temperature (Ckt1 and Ckt2)	

Table 52. Motor settings and status points

Active Current Limit Setpoint	Starter Input Voltage BC CktX
Average Motor Current % RLA CktX	Starter Input Voltage CA Ck
Motor Frequency CktX	Motor Winding Temperature 1 CktX
Frequency Command CktX	Motor Winding Temperature 2 CktX
Starter Motor Current L1 % RLA CktX	Motor Winding Temperature 3 CktX
Starter Motor Current L2 % RLA CktX	Motor Temperature CktX
Starter Motor Current L3 % RLA CktX	Motor Speed CktX
Starter Motor Current L1 CktX Starter	AFD Transistor Temperature CktX
Motor Current L2 CktXStarter	AFD Input Frequency
Motor Current L3 CktX	Starter Input Power Consumption CktX
AFD Input Current L1 CktX	Starter Power Demand CktX Starter Motor Power Factor CktX
AFD Input Current L2 CktXAFD	AFD Output Power CktX
Input Current L3 CktX	AFD Average Input Current CktX
AFD Output Voltage CktX	Starter Energy Consump. Resettable CktX
AFD DC Bus Voltage CktX	Starter Energy Consump. Non Reset CktX
AFD DC Bus Current CktX	Starter Energy Consump. Time of Last Reset CktX
Starter Input Voltage AB CktX	

Table 53. Purge settings and status points

Purge Top Level Mode (button links to Purge Operating Modes screen) (Ckt1 and Ckt2)	Pumpout Chiller On—7 days (Ckt1 and Ckt2)
Purge Regen Cycle (button links to PUrge Regen Cycle) (Ckt1 and Ckt2)	Pumpout Chiller Off—7 days (Ckt1 and Ckt2)
Purge Fault Indicator (button links to Alarms screen) (Ckt1 and Ckt2)	Time Until Next Purge Run (Ckt1 and Ckt2)
Daily Pumpout—24 Hours (Ckt1 and Ckt2)	Purge Rfgt Compressor Suction Temp (Ckt1 and Ckt2)
Average Daily Pumpout—7 Days (Ckt1 and Ckt2)	Purge Liquid Temperature (Ckt1 and Ckt2)
Daily Pumpout Limit (Ckt1 and Ckt2)	Pumpout—Life (Ckt1 and Ckt2)
Chiller On—7 Days (Ckt1 and Ckt2)	Purge Carbon Tank Temp (Ckt1 and Ckt2)

Reports

The following data can be viewed on the Reports screen. For more information, refer to

Log Sheet

Table 54.   Evaporator

Report item	Unit
Evaporator Entering Water Temperature	XXX.X °F/°C
Evaporator Leaving Water Temp	XXX.X °F/°C
Evaporator Water Flow Status	Flow/No Flow
Evaporator Sat Rfgt Temp (Ckt1 and Ckt2)	XXX.X °F/°C
Evaporator Rfgt Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Evaporator Approach Temp (Ckt1 and Ckt2)	XXX.X °F/°C

Table 55.   Condenser

Report item	Unit
Cond Entering Water Temp	Cond Entering Water Temp
Cond Leaving Water Temp	Cond Leaving Water Temp
Cond Water Flow Status	Cond Water Flow Status
Cond Sat Rfgt Temp (Ckt1 and Ckt2)	Cond Sat Rfgt Temp (Ckt1 and Ckt2)
Cond Rfgt Pressure (Ckt1 and Ckt2)	Cond Rfgt Pressure (Ckt1 and Ckt2)
Cond Approach Temp (Ckt1 and Ckt2)	Cond Approach Temp (Ckt1 and Ckt2)

Table 56.   Motor

Report item	Unit
Starter Current L1 %RLA (Ckt1 and Ckt2)	XXX.X %
Starter Current L2 %RLA (Ckt1 and Ckt2)	XXX.X %
Compressor Starts (Ckt1 and Ckt2)	XXXX Starts
Compressor Running Time (Ckt1 and Ckt2)	XX:XX Hr:Min
Oil Tank Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Oil Pump Discharge Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Oil Differential Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Oil Tank Temperature (Ckt1 and Ckt2)	XXX.X °F/°C
IGV 1 Percent Open (Ckt1 and Ckt2)	XXX.X %
IGV 1 Position (Ckt1 and Ckt2)	Steps
IGV 2 Percent Open (Ckt1 and Ckt2)	XXX.X %
IGV 2 Position (Ckt1 and Ckt2)	Steps
Starter Current L3 %RLA (Ckt1 and Ckt2)	XXX.X %
Starter Current L1 (Ckt1 and Ckt2)	XXXX A
Starter Current L2 (Ckt1 and Ckt2)	XXXX A
Starter Current L3 (Ckt1 and Ckt2)	XXXX A
Starter Voltage Phase AB (Ckt1 and Ckt2)	XXXXX.X V
Starter Voltage Phase BC (Ckt1 and Ckt2)	XXXXX.X V
Starter Voltage Phase CA (Ckt1 and Ckt2)	XXXXX.X V

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Appendix B: Data for CenTraVac Duplex Chillers

Table 56.   Motor (continued)

Report item	Unit
Starter Power Demand (Ckt1 and Ckt2)	XXXX kW
Starter Load Power Factor (Ckt1 and Ckt2)	XX.X
Motor Winding Temp 1 (Ckt1 and Ckt2)	XXX.X °F/°C
Motor Winding Temp 2 (Ckt1 and Ckt2)	XXX.X °F/°C
Motor Winding Temp 3 (Ckt1 and Ckt2)	XXX.X °F/°C
AFD Frequency (Ckt1 and Ckt2)	XX Hz
AFD Speed (Ckt1 and Ckt2)	XXXX RPM
AFD Transistor Temp (Ckt1 and Ckt2)	XXX.X °F/°C

Table 57.   Purge

Report item	Unit
Time Until Next Purge Run (Ckt1 and Ckt2)	XXX.X min
Daily Pumpout—24 Hours (Ckt1 and Ckt2)	XXX.X min
Average Daily Pumpout—7 Days (Ckt1 and Ckt2)	XXX.X min
Daily Pumpout Limit (Ckt1 and Ckt2)	XXX.X min
Chiller On—7 Days (Ckt1 and Ckt2)	XXX.X min
Pumpout Chiller On—7 Days (Ckt1 and Ckt2)	XXX.X min
Pumpout Chiller Off—7 Days (Ckt1 and Ckt2)	XXX.X min
Pumpout—Life (Ckt1 and Ckt2)	XXX.X min
Purge Rfgt Compressor Suction Temp (Ckt1 and Ckt2)	XXX.X °F/°C
Purge Liquid Temp (Ckt1 and Ckt2)	XXX.X °F/°C
Purge Carbon Tank Temp (Ckt1 and Ckt2)	XXX.X °F/°C

ASHRAE Chiller Log

Note: The ASHRAE Chiller Log contains those items recommended by ASHRAE Std 147 Standard 147-2002, Reducing Release of Halogenated Refrigerants from Refrigeration and Air-Conditioning Equipment and Systems.

Table 58.   ASHRAE Chiller Log data

Data name	Value
Current Date/Time	User-selected date/time format
Chiller Top Level Mode	Dependent on chiller type
Evap Entering Water Temp	XXX.X °F/C°
Evap Leaving Water Temp	XXX.X °F/C°
Evap Water Flow Status	Flow/No Flow
Evap Differential Wtr Press	XXX.X PSI/kPa
Approx Evap Water Flow	XXX.X gpm/lpm
Calculated Chiller Capacity	XXXX tons/kW
Refrigerant Type	R123

Table 58.   ASHRAE Chiller Log data (continued)

Data name	Value
Refrigerant Monitor	XXX.X ppm
Active Chilled Water Setpoint	XXX.X F°/C°
Active Current Limit Setpoint	XXX.X %
Cond Entering Water Temp	XXX.X °F/C°
Cond Leaving Water Temp	XXX.X °F/C°
Cond Water Flow Status	Flow/No Flow
Cond Differential Wtr Press	XXX.X PSI/kPa
Approx Cond Water Flow	XXXX gpm/lpm
Top Level Operating Mode (Ckt1 and Ckt2)	Dependent on chiller type
Evaporator Saturated Rfgt Temp (Ckt1 and Ckt2)	XXX.X °F/C°
Evaporator Refrigerant Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Evaporator Approach Temp (Ckt1 and Ckt2)	XXX.X °F/C°
Condenser Saturated Rfgt Temp (Ckt1 and Ckt2)	XXX.X °F/C°
Condenser Refrigerant Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Condenser Approach Temperature (Ckt1 and Ckt2)	XXX.X °F/C°
Compressor Starts (Ckt1 and Ckt2)	XXXX
Compressor Running Time (Ckt1 and Ckt2)	XX:XX Hr:Min
Compressor Refrigerant Discharge Temperature (Ckt1 and Ckt2)	XXX.X °F/C°
Oil Pump Discharge Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Oil Tank Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Oil Differential Pressure (Ckt1 and Ckt2)	XXX.X PSI/kPa
Oil Tank Temperature (Ckt1 and Ckt2)	XXX.X °F/C°
Inboard Bearing Temp (Ckt1 and Ckt2)	XXX.X °F/C°
Outboard Bearing Temp (Ckt1 and Ckt2)	XXX.X F°/C°
Daily Pumpout—24 Hrs (Ckt1 and Ckt2)	XXX.X Min
Daily Pumpout Limit (Ckt1 and Ckt2)	XXX.X Min
Pumpout—Life (Ckt1 and Ckt2)	XXXXXX.X Hours
Purge Top Level Mode (Ckt1 and Ckt2)	On/Auto/Adaptive/Stop
Purge Operating Mode (Ckt1 and Ckt2)	On/Auto/Adaptive/Stop
Starter Current L1 (Ckt1 and Ckt2)	XXXX A
Starter Current L2 (Ckt1 and Ckt2)	XXXX A
Starter Current L3 (Ckt1 and Ckt2)	XXXX A
Starter Voltage Phase AB (Ckt1 and Ckt2)	XXXX V
Starter Voltage Phase BC (Ckt1 and Ckt2)	XXXX V
Starter Voltage Phase CA (Ckt1 and Ckt2)	XXXX V

Items Available to Include in Custom Reports

Table 59. Chiller

Active Base Loading Setpoint	Version
Active Base Loading Setpoint Source	Chiller Heating or Cooling Mode
Application Part Number	Chiller Top Level Mode

Table 60. Evaporator

Active Chilled Water Setpoint	Evaporator Saturated Refrigerant Temperature (Ckt1 and Ckt2)
Active Chilled Water Setpoint Source	Evaporator Water Flow Status
BAS Chilled Water Setpoint	Active Ice Termination Setpoint
Evaporator Approach Temperature (Ckt1 and Ckt2)	Active Ice Termination Setpoint Source
Evaporator Entering Water Temperature	Calculated Chiller Capacity
Evaporator Leaving Water Temperature	Approx Evap Water Flow
Evaporator Pump Override	Evap Differential Wtr Pressure
Evaporator Pump Override Time Remaining	External Chilled Water Setpoint
Evaporator Refrigerant Pressure (Ckt1 and Ckt2)	Front Panel Ice Building Command

Table 61. Compressor

Chiller Control Signal	Oil Differential Pressure (Ckt1 and Ckt2)
Active Base Loading Setpoint	Oil Heater Command (Ckt1 and Ckt2)
Active Base Loading Setpoint Source	Oil Pump Control (Ckt1 and Ckt2)
Compressor Refrigerant Discharge Temperature (Ckt1 and Ckt2)	Oil Pump Command (Ckt1 and Ckt2)
Compressor Running Status (Ckt1 and Ckt2)	Oil Pump Discharge Pressure (Ckt1 and Ckt2)
Compressor Running Time (Ckt1 and Ckt2)	Oil Pump Override Time Remaining
Compressor Starts (Ckt1 and Ckt2)	Oil Tank Pressure (Ckt1 and Ckt2)
Inboard Bearing Temperature (Ckt1 and Ckt2)	Oil Tank Temperature (Ckt1 and Ckt2)
IGV1 Position (Ckt1 and Ckt2)	Oil Pump Override Time Remaining (Ckt1 and Ckt2)
IGV1 Percent Open (Ckt1 and Ckt2)	Outboard Bearing Temperature (Ckt1 and Ckt2)
IGV2 Position (Ckt1 and Ckt2)	Inboard Bearing Temperature (Ckt1 and Ckt2)
IGV2 Percent Open (Ckt1 and Ckt2)	

Table 62. Condenser

Condenser Approach Temperature (Ckt1 and Ckt2)	Condenser Pump Override
Condenser Entering Water Temperature (Ckt1 and Ckt2)	Active Hot Water Setpoint
Condenser Leaving Water Temperature (Ckt1 and Ckt2)	Active Hot Water Setpoint Source
Condenser Refrigerant Pressure (Ckt1 and Ckt2)	Approx Cond Water Flow
Condenser Saturated Refrigerant Temperature (Ckt1 and Ckt2)	Cond Differential Wtr Press
Condenser Water Flow Status	Outdoor Air Temperature
Condenser Pump Override Time Remaining	

Table 63.   Motor

Active Current Limit Setpoint	Phase Unbalance (Ckt1 and Ckt2)
Active Current Limit Setpoint Source	Restart Inhibit Time (MP) (Ckt1 and Ckt2)
BAS Current Limit Setpoint	Starter Average Phase Voltage (Ckt1 and Ckt2)
External Current Limit Setpoint	Starter Current L1 %RLA (Ckt1 and Ckt2)
AFD DC Bus Voltage (Ckt1 and Ckt2)	Starter Current L1 (Ckt1 and Ckt2)
AFD Output Power (Ckt1 and Ckt2)	Starter Current L2 %RLA (Ckt1 and Ckt2)
AFD Transistor Temperature (Ckt1 and Ckt2)	Starter Current L2 (Ckt1 and Ckt2)
Starter Power Consumption (Ckt1 and Ckt2)	Starter Current L3 %RLA (Ckt1 and Ckt2)
Starter Load Power Factor (Ckt1 and Ckt2)	Starter Current L3 (Ckt1 and Ckt2)
Speed (Ckt1 and Ckt2)	Starter Energy Consumption Not Resettable (Ckt1 and Ckt2)
Frequency (Ckt1 and Ckt2)	Starter Energy Consumption Resettable (Ckt1 and Ckt2)
Generator Frequency Command (Ckt1 and Ckt2)	Starter Energy Consumption Last Reset (Ckt1 and Ckt2)
Generator Speed Signal (Ckt1 and Ckt2)	Starter Power Demand (Ckt1 and Ckt2)
Average Line Current %RLA (Ckt1 and Ckt2)	Starter Voltage Phase AB (Ckt1 and Ckt2)
Motor Winding Temperature 1 (Ckt1 and Ckt2)	Starter Voltage Phase BC (Ckt1 and Ckt2)
Motor Winding Temperature 2 (Ckt1 and Ckt2)	Starter Voltage Phase CA (Ckt1 and Ckt2)
Motor Winding Temperature 3 (Ckt1 and Ckt2)	

Table 64.   Purge

Purge Top Level Mode (Ckt1 and Ckt2)	Pumpout—Life (Ckt1 and Ckt2)
Average Daily Pumpout—7 Days (Ckt1 and Ckt2)	Purge Carbon Tank Temp (Ckt1 and Ckt2)
Carbon Regen Cycles (Ckt1 and Ckt2)	Purge Liquid Temperature (Ckt1 and Ckt2)
Chiller On—7 Days (Ckt1 and Ckt2)	Purge Refrigerant Compressor Suction Temp (Ckt1 and Ckt2)
Daily Pumpout—24 Hours (Ckt1 and Ckt2)	Time at Last Regeneration (Ckt1 and Ckt2)
Pumpout Chiller Off—7 Days (Ckt1 and Ckt2)	Time Until Next Purge Run (Ckt1 and Ckt2)
Pumpout Chiller On—7 Days (Ckt1 and Ckt2)	

Data Graph Data Points

This subsection contains:

- Data points used in the default data graphs, organized by graph
- Data points available to include in custom data graphs, organized by component

Data Points Used in Default Data Graphs

Table 65.   Chiller Overview 1

Graph data point	Axis
Active Chilled Water Setpoint	Left Y-axis
Active Hot Water Setpoint	Left Y-axis
Evaporator Leaving Evaporator Temperature	Left Y-axis
Evaporator Entering Water Temperature	Left Y-axis

Table 65. Chiller Overview 1 (continued)

Graph data point	Axis
Condenser Leaving Water Temperature	Left Y-axis
Condenser Entering Water Temperature	Left Y-axis
Calculated Chiller Capacity	Right Y-axis

Table 66. Chiller Overview 2

Graph data point	Axis
Average Motor Current % RLA Ckt1 1st y-axis	Left Y-axis
Average Motor Current % RLA Ckt2 1st y-axis	Left Y-axis
Motor Frequency Ckt1 1st y-axis	Left Y-axis
Motor Frequency Ckt2 1st y-axis	Left Y-axis
Oil Differential Pressure Ckt1 1st y-axis	Left Y-axis
Oil Differential Pressure Ckt2 1st y-axis	Left Y-axis

Table 67. Evaporator

Graph data point	Axis
Active Chilled Water Setpoint	Left Y-axis
Evaporator Leaving Water Temperature	Left Y-axis
Evaporator Entering Water Temperature	Left Y-axis
Evaporator Saturated Refrigerant Temperature (Ckt1 and Ckt2)	Left Y-axis
Approximate Evaporator Water Flow	Right Y-axis

Table 68. Condenser

Graph data point	Axis
Active Hot Water Setpoint	Left Y-axis
Condenser Leaving Water Temperature	Left Y-axis
Condenser Entering Water Temperature	Left Y-axis
Condenser Saturated Refrigerant Temperature (Ckt1 and Ckt2)	Left Y-axis
Approximate Condenser Water Flow	Right Y-axis

Table 69. Compressor

Graph data point	Axis
Average Motor Current % RLA (Ckt1 and Ckt2)	Left Y-axis
Active Current Limit Setpoint	Left Y-axis
AFD Frequency (Ckt1 and Ckt2)	Left Y-axis
IGV 1 Percent Open (Ckt1 and Ckt2)	Left Y-axis
Chiller Control Signal (Ckt1 and Ckt2)	Left Y-axis
Compressor Refrigerant Discharge Temperature (Ckt1 and Ckt2)	Right Y-axis

Table 70. Oil System

Graph data point	Axis
Oil Differential Pressure (Ckt1 and Ckt2)	Left Y-axis
Oil Tank Pressure (Ckt1 and Ckt2)	Left Y-axis
Oil Pump Discharge Pressure (Ckt1 and Ckt2)	Left Y-axis
Oil Tank Temperature (Ckt1 and Ckt2)	Right Y-axis
Outboard Bearing Temperature (Ckt1 and Ckt2)	Right Y-axis
Inboard Bearing Temperature (Ckt1 and Ckt2)	Right Y-axis

Table 71. Oil System

Graph data point	Axis
Oil Differential Pressure (Ckt1 and Ckt2)	Left Y-axis
Oil Tank Pressure (Ckt1 and Ckt2)	Left Y-axis
Oil Pump Discharge Pressure (Ckt1 and Ckt2)	Left Y-axis
Oil Tank Temperature (Ckt1 and Ckt2)	Right Y-axis
Outboard Bearing Temperature (Ckt1 and Ckt2)	Right Y-axis
Inboard Bearing Temperature (Ckt1 and Ckt2)	Right Y-axis

Table 72. Motor

Graph data point	Axis
Average Motor Current %RLA CktX	Left Y-axis
Starter Motor Current L1 % RLA CktX	Left Y-axis
Starter Motor Current L2 % RLA (CktX)	Left Y-axis
Starter Motor Current L3 % RLA (CktX)	Left Y-axis
Starter Input Voltage Phase AB (CktX)	Right Y-axis
Starter Input Voltage Phase BC (CktX)	Right Y-axis
Starter Input Voltage Phase CA (CktX)	Right Y-axis

Table 73. Motor Temperature

Graph data point	Axis
Motor Winding Temperature 1 (Ckt1 and Ckt2)	Left Y-axis
Motor Winding Temperature 2 (Ckt1 and Ckt2)	Left Y-axis
Motor Winding Temperature 3 (Ckt1 and Ckt2)	Left Y-axis
AFD Transistor Temperature (Ckt1 and Ckt2)	Left Y-axis

Table 74. Purge

Graph data point	Axis
Daily Pumpout—24 Hours (Ckt1 and Ckt2)	Left Y-axis
Pumpout Chiller On—7 Days (Ckt1 and Ckt2)	Left Y-axis
Pumpout Chiller Off—7 Days (Ckt1 and Ckt2)	Left Y-axis

Table 74.   Purge (continued)

Graph data point	Axis
Average Daily Pumpout—7 Days (Ckt1 and Ckt2)	Right Y-axis
Purge Refrigerant Compressor Suction Temperature (Ckt1 and Ckt2)	Right Y-axis
Purge Liquid Temperature (Ckt1 and Ckt2)	Right Y-axis

Table 75.   Approach Temperature

Graph data point	Axis
Evaporator Approach Temperature (Ckt1 and Ckt2)	Left Y-axis
Condenser Approach Temperature (Ckt1 and Ckt2)	Left Y-axis
Approximate Evaporator Water Flow (Ckt1 and Ckt2)	Right Y-axis
Approximate Condenser Water Flow (Ckt1 and Ckt2)	Right Y-axis
Average Line Current %RLA (Ckt1 and Ckt2)	Right Y-axis

Data Points in Custom Data Graphs

Table 76.   Evaporator

Active Chilled Water Setpoint
Evaporator Leaving Water Temperature
Evaporator Entering Water Temperature
Approx Evap Water Flow
Evap Differential Wtr Press
Calculated Chiller Capacity
Active Ice Termination Setpoint
Evaporator Saturated Rfgt Temp Ckt1
Evaporator Refrigerant Pressure Ckt1
Evaporator Approach Temperature Ckt1
Evaporator Saturated Rfgt Temp Ckt2
Evaporator Refrigerant Pressure Ckt2
Evaporator Approach Temperature Ckt2
Evaporator Entering Water Pressure
Evaporator Leaving Water Pressure

Table 77.   Condenser

Active Hot Water Setpoint
Condenser Leaving Water Temperature
Condenser Entering Water Temperature
Outdoor Air Temperature
Refrigerant Monitor
Approx Cond Water Flow

Table 77.   Condenser (continued)

Cond Differential Wtr Press
Head Pressure Control Status
Condenser Saturated Rfgt Temp Ckt1
Condenser Refrigerant Pressure Ckt1
Condenser Approach Temperature Ckt1
Differential Refrigerant Pressure Ckt1
Condenser Saturated Rfgt Temp Ckt2
Condenser Refrigerant Pressure Ckt2
Condenser Approach Temperature Ckt2
Differential Refrigerant Pressure Ckt2
Condenser Entering Water Pressure
Condenser Leaving Water Pressure

Table 78.   Compressor

Chiller Control Signal
Oil Tank Pressure Ckt1
Oil Pump Discharge Pressure Ckt1
Oil Differential Pressure Ckt1
Oil Tank Temperature Ckt1
Inboard Bearing Temperature Ckt1
Outboard Bearing Temperature Ckt1
Outboard Bearing Pad Temperature #1 Ckt1 *Added for CDHH
Outboard Bearing Pad Temperature #2 Ckt1 *Added for CDHH
Outboard Bearing Pad Temperature #3 Ckt1 *Added for CDHH
IGV 1 Percent Open Ckt1
IGV 1 Position Ckt1
IGV 2 Percent Open Ckt1
IGV 2 Position Ckt1
Compressor Rfgt Discharge Temp Ckt1
Oil Tank Pressure Ckt2
Oil Pump Discharge Pressure Ckt2
Oil Differential Pressure Ckt2
Oil Tank Temperature Ckt2
Inboard Bearing Temperature Ckt2
Outboard Bearing Temperature Ckt2
Outboard Bearing Pad Temperature #1 Ckt2 *Added for CDHH
Outboard Bearing Pad Temperature #2 Ckt2 *Added for CDHH

Table 78.   Compressor (continued)

Outboard Bearing Pad Temperature #3 Ckt2 *Added for CDHH
IGV 1 Percent Open Ckt2
IGV 1 Position Ckt2
IGV 2 Percent Open Ckt2
IGV 2 Position Ckt2
Compressor Rfgt Discharge Temp Ckt2

Table 79.   Motor

Active Current Limit Setpoint
Motor Frequency Ckt1
Frequency Command Ckt1
Average Motor Current % RLA Ckt1
Starter Motor Current L1 % RLA Ckt1
Starter Motor Current L2 % RLA Ckt1
Starter Motor Current L3 % RLA Ckt1
Starter Motor Current L1 Ckt1
Starter Motor Current L2 Ckt1
Starter Motor Current L3 Ckt1
Starter Average Phase Voltage Ckt1
Starter Input Voltage AB Ckt1
Starter Input Voltage BC Ckt1
Starter Input Voltage CA Ckt1
Motor Winding Temperature 1 Ckt1
Motor Winding Temperature 2 Ckt1
Motor Winding Temperature 3 Ckt1
Motor Temperature Ckt1
Starter Input Power Consumption Ckt1
Starter Power Demand Ckt1
Starter Motor Power Factor Ckt1
AFD Average Input Current Ckt1
AFD Input Current L1 Ckt1
AFD Input Current L2 Ckt1
AFD Input Current L3 Ckt1
AFD Input Frequency Ckt1
AFD Output Voltage Ckt1
AFD DC Bus Voltage Ckt1
AFD DC Bus Current Ckt1
(Note: Added per CR 51244, 5/2/14)

Table 79.   Motor (continued)

AFD Output Power Ckt1
AFD Ground Current Ckt1
AFD Inverter Base Temp Ckt1
AFD Rectifier Base Temp Ckt1
AFD Transistor Temperature Ckt1
Motor Frequency Ckt2
Frequency Command Ckt2
Average Motor Current % RLA Ckt2
Starter Motor Current L1 % RLA Ckt2
Starter Motor Current L2 % RLA Ckt2
Starter Motor Current L3 % RLA Ckt2
Starter Motor Current L1 Ckt2
Starter Motor Current L2 Ckt2
Starter Motor Current L3 Ckt2
Starter Average Phase Voltage Ckt2
Starter Input Voltage AB Ckt2
Starter Input Voltage BC Ckt2
Starter Input Voltage CA Ckt2
Motor Winding Temperature 1 Ckt2
Motor Winding Temperature 2 Ckt2
Motor Winding Temperature 3 Ckt2
Motor Temperature Ckt2
Starter Input Power Consumption Ckt2
Starter Power Demand Ckt2
Starter Motor Power Factor Ckt2
AFD Average Input Current Ckt2
AFD Input Current L1 Ckt2
AFD Input Current L2 Ckt2
AFD Input Current L3 Ckt2
AFD Input Frequency Ckt2
AFD Output Voltage Ckt2
AFD DC Bus Voltage Ckt2
AFD DC Bus Current Ckt1
(Note: Added per CR 51244, 5/2/14)
AFD Output Power Ckt2
AFD Ground Current Ckt2
AFD Inverter Base Temp Ckt2

Table 79.   Motor (continued)

AFD Rectifier Base Temp Ckt2
AFD Transistor Temperature Ckt2

Table 80.   Purge

Daily Pumpout-24 hours Ckt1
Pumpout Chiller On 7 Days Ckt1
Pumpout Chiller Off 7 Days Ckt1
Average Daily Pumpout 7 days Ckt1
Purge Rfgt Compressor Suction Temp Ckt1
Purge Liquid Temperature Ckt1
Purge Carbon Tank Temp Ckt1
Daily Pumpout-24 hours Ckt2
Pumpout Chiller On 7 Days Ckt2
Pumpout Chiller Off 7 Days Ckt2
Average Daily Pumpout 7 days Ckt2
Purge Rfgt Compressor Suction Temp Ckt2
Purge Liquid Temperature Ckt2
Purge Carbon Tank Temp Ckt2

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