
5.1 Patient Alarms

This menu allows the user to set individual patient alarms. If the system has been set up so that a password is required, the first screen to appear in the interactive screen will be the password screen.

Selecting the **PASSWORD** button opens a dialog box containing a keypad used to enter the password. The default password is **alarm**.

If an incorrect password is entered the message, **Incorrect Password, Please Try Again** is displayed. If a second incorrect password is entered the message, **Incorrect Password, This is your last chance. Please try again**, is displayed. If a third incorrect password is entered the system will return to the Normal Screen.

When the correct password is entered two file folders appear, **Responses** and **Alarm Limits**. If a patient is not selected, the system will prompt the user to choose a patient before opening either folder. The message reads **No Patient Selected**.

5.1.1 File Folder Tab: Alarm Limits

This screen allows the user to set alarm limits based on the needs of the individual patient. The default alarm limits are the same as the system alarm limits. There is a slide bar to set both the high and low alarm limits for each parameter.

The user can turn off each alarm limit by parameter (except Apnea and SpO₂). Setting an alarm limit to the maximum or minimum level and selecting the up arrow (for the high limit) or the down arrow (for the low limit) turns off each alarm limit. The limits and defaults are described in the Appendix ("System Alarm Limits and Ranges for Parameters" on page 10-24). It is possible to have more parameters (and therefore more limits) than can be displayed on one page. Previous and next page buttons allow the user to view all of the available alarm limits by turning pages to view the entire list of limits.

In this file, the following choices can be made:

- 1. Auto set alarm values** - A function where the ViewPoint Central Station learns a patient's baseline parameter levels then sets the alarms +/- 10% around the individual patient's baseline.
 - If alarms are set to values which are not consistent with numerical choices of the ViewPoint Central Station (other than whole numbers), values will be automatically moved to the next valid setting. In the case of fractional data values will be rounded to nearest whole number. Increments are pushed to the closest allowable increment.
 - If the new calculated low limit is less than the minimum low alarm limit range value for the parameter, it will be set to the minimum low alarm limit range value.
 - If the new calculated high limit is greater than the maximum high alarm for the parameter, it will be set to the maximum high alarm limit range value.
 - If the parameter alarm has been set to **OFF** at the time **AUTO SELECT** is selected, alarms will remain **OFF**. Any Alarms not selected to **OFF** will be set to values described above.

WARNING: Auto set alarm values works best when the patient is in stable condition.

- 2. Restore Default Settings** - Restores the system alarm default thresholds. These thresholds can be configured via the system alarm limits screen.
- 3. Restore previous settings** - Restores the alarm settings that were in place for this patient at the time the Patient Alarm Limits screen was opened.
- 4. Export settings to bedside** - Exports patient settings to the bedside monitor.
- 5. Import settings from bedside** - Imports patient settings from the bedside monitor.

The **NORMAL SCREEN** button appears on each sub-file.

WARNING: Cardiac arrhythmia and respiratory apnea conditions are not detected by ViewPoint they are alarm conditions that are detected by compatible physiological monitor(s) connected to the ViewPoint Central Station device. The ViewPoint Central Station displays these conditions on the patient demographic line regardless of the alarm tracking configuration.

Physiological alarms are described in Chapter 1 ("Physiological Alarm Indication" on page 1-8).

The following table describes the different level screens for patient alarms:

FILE FOLDER TABS	FIRST LEVEL	SECOND LEVEL
Patient Alarm Responses	Print on alarm	ON OFF
	Freeze on Alarm	ON OFF
	Level	1, 2, 3

FILE FOLDER TABS	FIRST LEVEL	SECOND LEVEL
Patient Alarm Limits	List of parameters/includes arrhythmia alarms. See "System Alarm Limits and Ranges for Parameters" on page 10-24.	Slider bars - to set high/low limits or turn alarms OFF
	Auto set Alarm	Toggle: ON/OFF
	Import settings from bedside	Imports all alarm values to the ViewPoint Central Station
	Export Settings to bedside	Exports all alarm values to Bedside Monitor
	Restore Default Settings	Sets alarms to when alarm limits were last opened
	Restore previous settings	Sets alarms to when alarm limits were last opened
	Acknowledge ST Alarm	Acknowledge ST Alarm

5.1.2 File Folder Tab: Responses

The Responses file folder tab allows the user to set the response to alarms for an individual patient. It can be set to indicate the **severity** level of an alarm, **print on alarm**, and **freeze on alarm**. The user can choose all, none or any combination of these responses.

Each arrhythmia condition corresponds to a patient alarm response ("ViewPoint Central Station Messages" on page 10-37).

Lethal arrhythmias are defined as Asystole, V-Fib and V-Tach. These are severity level 1 latching alarms and can not be configured to a lower level.

All other parameters and arrhythmias are configurable to severity levels 2 or 3 with the exception of Heart Rate which can be set to level 1 or 2. Severity 1 is the highest and 3 is the lowest. Refer to the Appendix for all acceptable priorities ("Alarm Responses for Parameters" on page 10-39).

5.1.2.1 All Alarms Suspended Button

The **ALL ALARMS SUSPENDED** button (on the patient alarm responses screen) suspends the audio and visual alarm indications that are configured in this screen. This does not have an effect on severity level 1 alarms. The **ALL ALARMS SUSPENDED** button suspends all alarm responses for the selected patient. There is no effect on the alarm limit threshold set in the patient alarm limits screen. The message **"Alarms Suspended"** toggles in the waveform area of the patient's tile.

5.1.3 File Folder Tab: Wave Gain

Figure 5-1 below shows an example of the Wave Gain tab.



FIGURE 5-1 Wave Gain Tab

This screen is used to select the waveform gain for monitored waveforms and also to select pacemaker filtering for an individual patient. These functions are selectable via a scrolling list. Waveforms never extend beyond individual tile limits. Adjusting the gain at either the bedside or ViewPoint Central Station does not affect the gain at the other.

5.1.3.1 Wave Gain Button

The wave gain that is associated with this button activates a list of possible value or value ranges. The user selects the gain size from a menu.

5.1.3.2 Reset Wave Gain

The **RESET WAVE GAIN** button resets the wave gain for each parameter to its factory programmed default gains.

5.2 Placing Patients in Standby

5.2.1 File Folder Tab: Standby

The Standby tab is used to put a patient into Standby mode. Standby mode will disable all of a patient's alarms, allowing you to disconnect/reconnect a patient from a monitor without losing the patient's data and setup priorities. Uses of Standby mode include transport, bathing, a procedure, etc.

Layout of the Standby Tab

The Standby file folder tab contains a patient identification field that displays the name of the selected patient.

- If a patient is selected before going into the Standby tab, the name of the patient is displayed in the patient identification field (First Name/Last Name).
- If a different patient is selected while in the Standby tab, the patient identification field is updated.
- If you go into the Standby tab without selecting a patient, the error message **No patient Selected!** is displayed in the patient identification field.
- When a patient is put in Standby mode, a "Patient Standby" label is shown under the patient identification field.

The Standby file folder contains a **RETRIEVE PATIENT LOCATION** button. The **RETRIEVE PATIENT LOCATION** button will disable all alarms and discontinue all monitoring functions.

The Standby file folder tab contains a **NORMAL SCREEN** button in the side bar.

Activating Standby Mode

Standby mode is accessible from the Passport 2® and the ViewPoint Central Station.

- Standby mode is activated from the Passport 2 by pressing the **STANDBY** button.
- Standby mode is activated in the ViewPoint Central Station, by doing the following:

1. Touch the Standby file folder tab.
2. Select a patient for which to open the Standby file folder.
3. Press the **RETRIEVE PATIENT LOCATION** button.

Pressing the **RETRIEVE PATIENT LOCATION** button on the Standby tab displays a Patient Location selection box.

4. Select the Patient Location.

The Standby tab's Patient Location selection box contains the following options:

- Standby
- Cath lab
- X-ray
- Therapy
- Bath
- OR

- ER
- In Transit

5. Press the **SELECT** button to put the patient in standby.

A patient is put in Standby mode by selecting a patient location and pressing the **SELECT** button on the Patient Location selection box.

NOTE: **If a patient is put in Standby mode from the Passport 2®, a Patient Standby Location cannot be selected.**

When a patient is put in Standby mode, the text “Standby” and the selected patient location are displayed in the patient tile. If the “Standby” patient location is selected from the Patient Location selection box, only the text “Standby” will be displayed in the patient tile.

Removing a Patient from Standby Mode

A patient can only be removed from Standby mode from the Passport 2®.

- To remove a patient from Standby mode press the **STANDBY** button on the Passport 2.

Error Messages

- If the Standby tab is accessed while a patient is in Standby mode, the **Patient in auto standby may only be released from bedside** error message is displayed.
- If a new Patient Location is selected in the Standby tab while a patient is in Standby mode, the **Patient in auto standby may only be released from bedside** error message is displayed.

5.3 Patient Setup

The **PATIENT SET-UP** button allows you to configure the way a patient's digital and waveform data is displayed.

Configuring a Patient's Display

To configure a patient's display:

1. Select the **PATIENT SETUP** button.
2. Select a patient tile.

The patient's name is shown in the display area.

3. Access the Parameter Display, Wave Gain, and Standby file folders or cancel patient setup.
 - Access the Parameter Display, Wave Gain, or Standby file folders.
 - To cancel Patient Setup, select a different menu or button.

If a patient isn't selected before the **PATIENT SETUP** button is pressed, the error message **"No patient selected!"** is displayed in the *patient name* field.

5.3.1 File Folder Tab: Parameter Display

Figure 5-2 below shows an example of the Parameter Display tab.



FIGURE 5-2 Parameter Display Tab

The Parameter Display file folder tab is used to determine the display format of the selected patient's digital parameter and waveform displays. Heart rate and ECG waveform default to the digital data parameter tile 1 and waveform 1 positions.

The default waveform is the ECG lead selected in the Parameter Display menu. Defaults may be overridden with the exception of the HR and ECG waveform measurements. To configure the ECG waveform, select the waveform 1 tile and the name of the waveform from the scrolling list of waveforms. A second waveform can also be configured. The process for configuring the second waveform is the same as for the first.

The default waveform for Waveform 1 is Lead II; the default waveform for Waveform 2 is OFF.

- When a device that uses a 12 lead ECG cable is connected to the ViewPoint system, the system sees the cable as a 5 lead ECG cable and will only display 7 ECG vectors (I, II, III, aVR, aVF, aVL, and V1). This is separate from the vectors that are displayed on the connected device.
- When a device that uses a 5 lead ECG cable is connected to the ViewPoint system, the system can display any of 7 ECG vectors (I, II, III, aVR, aVF, aVL, and V1). This is separate from the vectors displayed on the connected device.
- When a device that uses a 3 lead ECG cable is connected to the ViewPoint system, the system will only display the 1 ECG lead that is currently displayed on the connected device. If the selected lead is not available to the ViewPoint system, the system will display a flat line.

If a user attempts to set a parameter to OFF, a message will appear asking **Are you sure you want to turn off the parameter?** Click **YES/NO** to acknowledge the message.

- Click **YES** to turn the parameter off.
- Click **NO** to keep the parameter on.

NOTE: When a device connected to the ViewPoint Central Monitoring System uses a 5 lead ECG cable, the ViewPoint Central Station can display any of 7 ECG vectors, independent of the vectors displayed on the connected device. When a device uses a 3 lead ECG cable, it can display only the 1 ECG lead currently displayed on the connected device.

5.3.1.1 Pacer Enhancement Button

The **PACER ENHANCEMENT** button has two states, **ON** and **OFF**. The button shows the state of the pacer enhancement selected for this patient. Pacer enhancement refers to the marking of any displayed ECG waveform with a vertical spike when the status for that incoming ECG waveform data indicates a pace signal. The ViewPoint system marks each waveform sample that indicates paced status with a vertical spike when the **PACER ENHANCEMENT** button is turned **ON**. ViewPoint does not **add** a pacer indication for any waveform sample, regardless of pacer status if the **PACER ENHANCEMENT** button is in turned **OFF**. Pacer enhancement is turned on and off by a check box.

Pacer enhancement only affects the displayed waveform data. Full disclosure data, trending, and alarm functions are not affected. The operation of pacer enhancement is separate from pacer filtration, which is described under the Wave Gain file folder ("Pacer Filtration and Enhancement" on page 10-40).

5.4 Menu Button: System Set-up

System Set-up determines settings for all of the displays. This includes system wide settings and defaults.

Once in the **System** menu, two sets of set-up options are available, one is open for all users to access, the other is password protected (**Installation Set-up**). The first set includes printer options and cluster set-up.

See "File Folder Tab: Passwords" on page 3-7..

5.4.1 File Folder Tab: Print Options

The Print Options folder is used to print and cancel print jobs. The main features of the Print Options folder tab include the following:

Canceling a Print Job

To cancel a print job:

1. Select the print job to be canceled.
A print job can be selected from the print job window, either by touching the screen or using the arrows.
2. Click the **CANCEL SELECTED PRINT JOB** button.

Deleting all Print Jobs

To delete all print jobs in the print job window:

- Click the **DELETE ALL PRINT JOBS** button

Print All Button

- The side bar of the Print Options tab will contain a **PRINT ALL** button

To Print an All Strips Report

- Pressing the **PRINT ALL** button will print an All Strips report for each patient that is active in the system.

The ViewPoint System is capable of supporting two laser printers per ViewPoint Central Station.

NOTE: Please refer to the manufacturer's printer manual for specific instructions regarding the printer.

5.4.2 File Folder Tab: Cluster

A **Cluster** is an indicator that is assigned to one or more patients on a system to identify by department or caregiver. Patients assigned to a cluster are indicated by color coded bars that appear between the **VIEW** button and the digital parameter. The use of clusters is for hospital management of the care area. Cluster reports may be generated based on this selection. The user assigns a reference label to each Cluster for reference use at the hospital. Cluster members can be changed at any time by using the **Cluster/Group Setup** file folder. The **NORMAL SCREEN** button will appear in each sub-file.

This file folder allows the user to assign patients to a particular group or cluster. A list of available patients displays all patient names available and a cluster indicator to the left of the name. If a cluster is not assigned to the patient the cluster indicator will appear as a black box with a diagonal dashed line. Once a cluster has been assigned to the patient the box will appear in the color of the assigned cluster label. To assign a patient to a cluster select the patient in the patient cluster window and select the desired cluster. Once this has been done, select the **ADD** button to add the patient to the cluster.

NOTE: **A patient can only belong to one cluster at a given time.**

To remove a cluster label from a patient select the patient and then press **CLEAR**. A patient may only be assigned to one cluster at a time. A patient does not need to be assigned to a cluster.

In order to assign or edit cluster labels select the desired cluster from the cluster list. Once a cluster has been selected, press the **EDIT LABELS** button to access the on-screen keyboard. If a label has already been assigned to this cluster it will appear above the keyboard. The user may create a new or edit an existing label. Selecting **ENTER** permits you to keep the information. Once finished selecting **ENTER** again returns you to the Cluster File folder. Repeat the process to create or edit additional labels.

Up to 11 cluster labels can be created at one time. An additional cluster label allows the user to remove a label from a patient. This label defaults to Other and removes cluster assignment when selected. Cluster labels are limited to 6 characters.

5.5 View

5.5.1 File Folder Tab: Bedside

Figure 5-3 below shows an example of the Bedside tab.

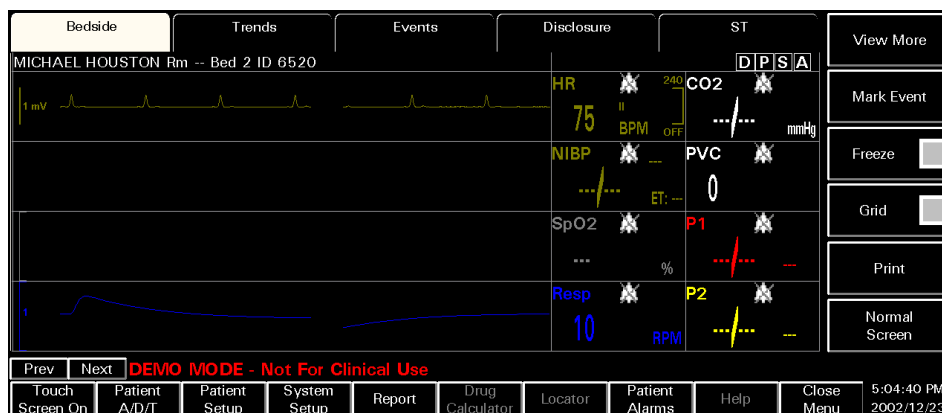


FIGURE 5-3 Bedside Display Tab

Selecting the **VIEW** button on the patient's parameter tile will change the display to the Bedside View screen. This display offers emulation of the bedside display in an expanded view. Alarming parameters are displayed here with the colored background appropriate for the severity of the alarm.

When the Bedside View display is selected with the main menu closed (main function buttons that are located across the bottom of the display are not displayed), the main menu automatically opens to display the main function buttons. The patient tile in the top half of the display becomes bordered in white and changes to black characters on a white background. This affect distinguishes it as the patient viewed in the bottom half of the display. To change the patient being viewed, select the new patient's **VIEW** button.

The following four icons will be shown on the right side of the Bedside Demographic Line:

- **D** Full Disclosure is active for this patient.
- **P** Pacer Enhancement is on.
- **A** Arrhythmia option is selected for this patient.
- **S** ST segment analysis option is selected for this patient.

To close the View display, either select the **NORMAL SCREEN** button (that will always be in the far lower right hand screen) or select the **CLOSE MENU** button (which will return to the normal screen and close the menu bar).

The following choices appear either across the top of the view display as file folder/sub-menu options, or in a column on the right side of the interactive screen as buttons:

CHOICES	LOCATION	CHOICES/FUNCTIONS
Bedside	File Folder tab	This is the default - the first screen to appear in the Bedside View interactive screen
Trends	File Folder tab	Switches to Trends display
Events	File Folder tab	Switches to Events display
Disclosure	File Folder tab	Switches to Disclosure display
ST	File Folder tab	Switches to ST display
View More	Button (Bedside)	Displays any additional waveforms or digital data currently being monitored on this patient.
Mark Event	Button (Bedside)	ON OFF
Freeze	Button (Bedside)	ON OFF
Grid	Button (Bedside)	ON OFF
Print	Button (Bedside)	Momentary contact (functions the same as REC in the patient tile)
Normal Screen	Button (Bedside)	Closes the interactive mode.

The print function provides a data printout. This printout is identical to selected patient's REC touch screen function display. Both are in real time and include the 10 seconds of data, immediately preceding selection of the print function.

With the Bedside View screen active the user can also initiate printing a strip of any patient's waveform(s) and digital data by selecting that patient's **REC** button.

Digital values are presented along with their associated waveforms (if available). Wave gains for each parameter are displayed on the left side of each waveform tile.

The display of an ECG waveform is accompanied by a lead annotation.

The digital data section of the Bedside tab includes an ST lead label that is shown in parentheses. The ST lead label shows the lead from which the displayed data is acquired. The ST lead labels that are available include: I, II, III, aVR, aVF, aVL, and V1. All ST lead labels in the Bedside tab will include a tag that indicates if the ST that is measured is seen by the bedside monitor as a delta value (-d) or an absolute value (-a).

- A **-d** tag is shown next to an ST lead label when the bedside monitor sees the measure as Delta ST.
- A **-a** tag is shown next to an ST lead label when the bedside monitor sees the measure as Absolute ST.

The **VIEW MORE** button allows the user to view additional parameter waveforms. Selecting this button will scroll the next parameter to the bottom position on this screen. One lead of ECG will always occupy the top waveform position and not scroll off, but the waveform in the second position will scroll off to be replaced by the third, the third replaced by the fourth.

The **FREEZE** button freezes the display of all waveforms and parameter data displayed, in the bedside view, at the time of selection. The bedside display remains frozen until the **FREEZE** button is selected again. This holds true even if another patient is selected for viewing in the bedside view. Freezing the interactive display will not affect the patient's waveform displayed in the patient's tile or any real time alarms.

The **GRID** button will superimpose grid lines on the current screen.

5.5.2 File Folder Tab: Trends

Figure 5-4 below shows an example of the Trends tab.

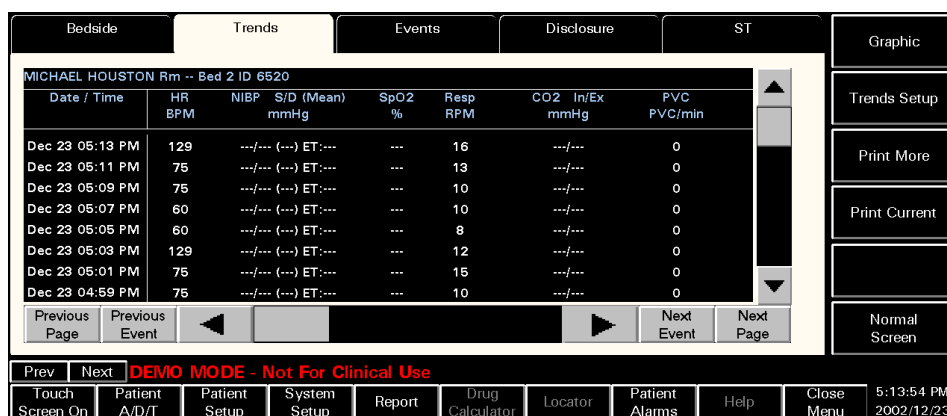


FIGURE 5-4 Trends Tab

This folder allows the user to view all trended data for a specific patient in either a list or graphic format. Trend data is defined as digital parameter data captured and saved by ViewPoint Central Station once every two minutes. The standard amount of stored trend data is 72 hours. The List Trend display is the default display format the first time the folder is accessed. The user can change between the graphic and list formats by selection of the appropriate button on the right side of the display. The title of this button is the opposite of the current format, toggling between List and Graphic.

UP/DOWN and **LEFT/RIGHT** buttons provide user navigation, between time and parameters displayed, in both formats. Quick movement through both formats is available with the **NEXT AND PREVIOUS PAGE** buttons. For purposes of this function, page is defined as a screen's worth of trend information and paging refers to position in time. Time format for trended data will follow the system setting for time (either 12 or 24 hour format). The list trends window time format always shows hours/minutes while the graphics trends window always shows hour/minutes/seconds.

For NIBP the most current data will be listed and trended. NIBP data over 15 minutes old will not be listed or trended.

5.5.2.1 List Trends

The **List Trends** display offers the user the ability to view all available vital sign information in a list presentation. The List Trends display offers the ability to view the first 8 vital sign measurements available. The samples are in a row format and parameters are displayed with the most current data first. A horizontal scroll bar at the bottom of the display provides scrolling ability to view parameters that are off screen to the right or left. The left column displays the time stamp for the trend sample. The time stamp window remains stationary when scrolling.

When in List Trends, the Trends tab includes an ST lead label in parentheses next to the data. The ST lead label shows the lead from which the displayed data is acquired. The ST lead label that are available include: I, II, III, aVR, aVF, aVL, and V1.

All ST lead labels in the Trends tab (List mode) will include a tag that indicates if the ST that is measured is seen by the bedside monitor as a delta value (-d) or an absolute value (-a).

- A **-d** tag is shown next to an ST lead label when the bedside monitor sees the measure as Delta ST.
- A **-a** tag is shown next to an ST lead label when the bedside monitor sees the measure as Absolute ST.

If a parameter has been in alarm during the time represented by the list trend a colored box will highlight the alarming parameter and its level. Red highlights indicate level one alarms and yellow highlights indicate level two and three alarms.

The **NEXT EVENT** and **PREVIOUS EVENT** buttons allow users to navigate based on stored events. Pressing **NEXT EVENT** will advance to the next occurring event. Pressing **PREV EVENT** will navigate to the event previous to the current time. The **NEXT PAGE** and **PREV PAGE** buttons allow the user to access entire pages of information, either forward or backwards in time. In a list trend record, if a physiological or technical event occurred for the parameter it will be blue, yellow or red.

NOTE: If the system clock displays an odd number of minutes, then the List Trends screen shows trend measurements in odd increments. If the system clock displays an even number of minutes, then the List Trends screen shows trend measurements in even increments. Exiting and returning to the List Trend screen may result in the display of different increments of measure, however the List Trend information is still accurate.

5.5.2.1.1 Printing List Trends

List Trends are shown in a Trends List Report. A Trends List Report can be printed using either of the following side bar buttons:

- **PRINT MORE**

The PRINT MORE button produces the Trends List Report's dialog box.

- **PRINT CURRENT**

The PRINT CURRENT button produces a one-page Trends List Report based on the data that is shown on the screen and any additional data that is used to fill the page.

For additional information on printing a Trends List Report, "Report Generation" on page 6-1. For additional information on the contents of a Trends List Report, "Report Layout and Specifications" on page 10-2.

5.5.2.2 Graphic Button

This button is located on the right side of the List Trends display. Selecting this button causes the trend format to change from the List format to the Graphic format.

5.5.2.3 Trend Setup Button

This is described in a section after the Graphic Trends button. It is common to both the List and Graphic formats. See "Graphic Trends" on page 5-15.

5.5.2.4 This section intentionally left blank.

5.5.2.5 Graphic Trends

The **GRAPHIC TRENDS** record format will graphically display trend data for 3 parameters at a time. The vertical scroll will scroll through all waveforms to provide access to all the remaining parameters. The trend waveform is actually comprised of individual data points recorded every two (2) minutes. The cursor indicates the time and date of the trend recording as well as the digital values for the parameters at this trend point. When first opened the Graphic Trend display will present the most current data to the right of the display. A cursor is positioned at the center point of the displayed data.

When in Graphic Trends, the Trends tab includes an ST lead label in parentheses. The ST lead label shows the lead from which the displayed data is acquired. The ST lead labels that are available include: I, II, III, aVR, aVF, aVL, and V1. All ST lead labels in the Trends tab (Graphic mode) will include a tag that indicates if the ST that is measured is seen by the bedside monitor as a delta value (-d) or an absolute value (-a).

- A **-d** tag is shown next to an ST lead label when the bedside monitor sees the measure as Delta ST.
- A **-a** tag is shown next to an ST lead label when the bedside monitor sees the measure as Absolute ST.

Navigating Graphic Trends

The Graphic Trends display opens showing graphics for the most current vital sign measurements. A horizontal scroll bar at the bottom of the display provides the ability to scroll and view the data that is not visible. The horizontal scroll bar contains the Zoom In/Zoom Out and Next Page/Prev Page buttons.

The Zoom In and Zoom Out buttons allow the user to view additional resolution in the graphic trend display. There are six zoom resolutions available (30min, 1 hr, 2hr, 4hr, 6hr, or 8hr).

- The **ZOOM IN** button will advance to the next zoom resolution and provides a closer look at the measurement.
- The **ZOOM OUT** button will navigate to the zoom resolution previous to the one that is currently displayed and provides a broader look at the measurement.

The Next Page and Prev Page buttons allow the user to scroll entire pages of information.

- Pressing **NEXT PAGE** will advance to the next page of trend information.
- Pressing the **PREV PAGE** will navigate to the page of trend information that is previous to the current one.

5.5.2.6 List Button

The list button in the sidebar of the Graphic Trends display. It toggles between Graphic format and List format depending on your selection.

5.5.2.7 This section intentionally left blank.

5.5.2.8 Trends Setup Button

Figure 5-5 below shows an example of the Trends tab when the Trends Setup button is selected.



FIGURE 5-5 Trends Setup Tab

The Trends Setup button configures the way that the data will be presented on the display. The Trends Setup button allows the user to select the order in which parameters are displayed. In graphic format, this determines which “parameters” are adjacent in the display. The parameter list indicates the display priority for all listed parameters. In the list format, this determines the order of the column data. The default order is taken from the default Unit Priorities that were set up during system setup (“Unit Priorities System Defaults” on page 10-29). The user can select the order of parameters by first selecting the numerical position of the parameter, then choosing the desired parameter from the list and pressing **SELECT**.

5.5.2.9 Done Button

The done button is used to accept the new changes made during setup and return to the Trends tab. Use of this button also saves the old settings for possible restoration. Any other means of exit, such as selecting another file folder tab or the Normal Screen button cancels the restore operation and cancels any changes made.

5.5.2.10 Restore Factory Settings Button

The restore factory settings button causes the current settings to be replaced with the default Unit Priorities. The default Unit Priorities are determined in the System Setup. The Done button is required to keep the restored settings. Any other means of exit, such as selecting another file folder tab or the Normal Screen button cancels the restore operation.

5.5.3 File Folder Tab: Events

Figure 5-6 below shows an example of the Events tab (list mode).

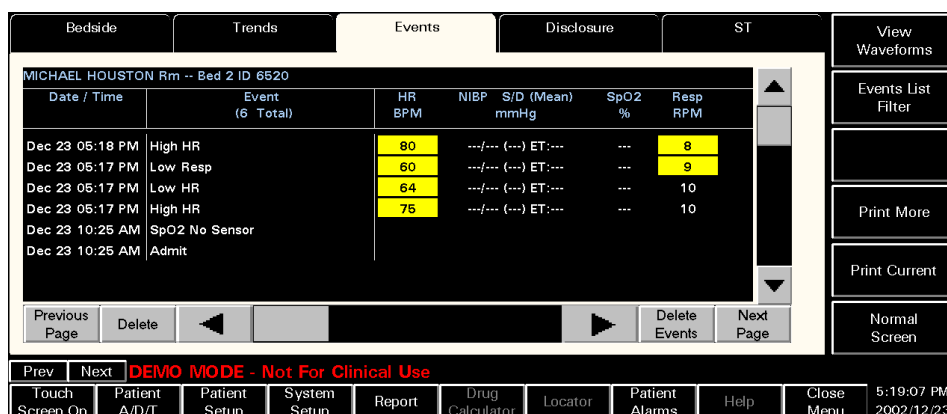


FIGURE 5-6 Events Tab (list mode)

Figure 5-7 below shows an example of the Events tab (View Waveforms).

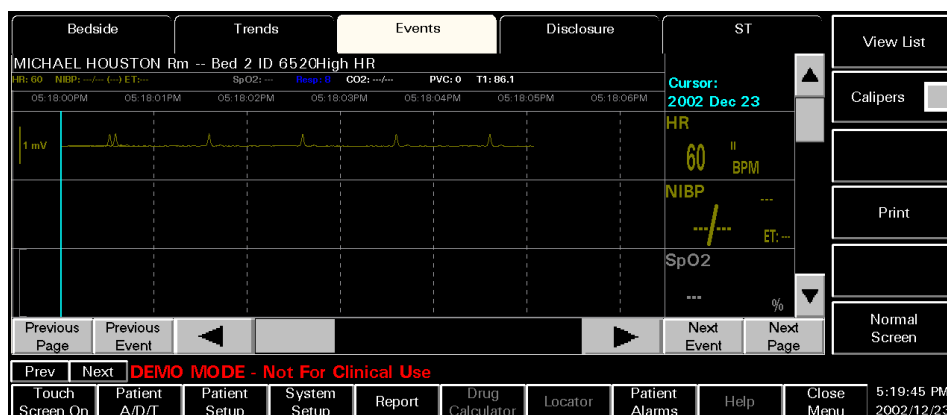


FIGURE 5-7 Events Tab (View Waveforms)

The ViewPoint Central Station will save a maximum of 1000 events for each patient. These events are triggered in one of five ways; manually, by the user selecting Mark Event in the Bedside view, or automatically by the ViewPoint upon alarm, Technical Event, Beside Alarm or System Event. A 20-second snapshot of all waveforms and digital data is saved. The data and waveform information is centered on the event. Therefore, an event includes 10 seconds pre and 10 seconds post event saved. Marking an event means that a 20-second segment of all waveforms for this patient is stored in the event history and an appropriate colored mark is placed in the event list to indicate the type of event that has occurred. Blue marks indicate technical events and system events. They are also indicated by highlighting the date and time. Red and yellow marks indicate the level of the alarm that triggered the event. They are also indicated by highlighting the alarming parameter value. Marking an event can be used when giving medications or when other significant treatments occur. No event indications are available in the graphic trends window. If a physiological or technical event occurs, in an event record, it will be marked blue, yellow or red.

EVENT COLOR CODING TABLE (FOR EVENT)

EVENT	COLOR
Level 1 Alarm	Red
Level 2 Alarm	Yellow
Level 3 Alarm	Yellow

When the maximum number of events able to be stored for a patient has been reached, the message **Event Overflow** appears in the patient's event file folder demographic line. This message stays until the user reduces (deletes) the number of stored events to less than 1000 events. While in the Event Overflow condition, the ViewPoint will replace older events with new events one at a time beginning with the first saved event (first in/first out).

The Event File Folder opens with a list of events and control buttons. The most current event appears at the top of the list. The list includes date/time, event label, number of total displayed events and all of the digital parameter data listed according to the unit's preset priority list. The up/down and left/right buttons are used to view all the parameter data. Only the following parameters have parameter data: Physiological Viewpoint Events, Arrhythmia events, Apnea events, ST single events, ST dual events, Bedside alarm events and user marked events. All other events display the message **No waveform data is collected for this event**, when the view waveforms button is pressed.

The Events tab includes an ST lead label that is shown in parentheses next to the data. The ST lead label shows the lead from which the displayed data is acquired. The ST lead labels that are available include: I, II, III, aVR, aVF, aVL, and V1. All ST lead labels in the Events tab will include a tag that indicates if the ST that is measured is seen by the bedside monitor as a delta value (-d) or an absolute value (-a).

- A **-d** tag is shown next to an ST lead label when the bedside monitor sees the measure as Delta ST.
- A **-a** tag is shown next to an ST lead label when the bedside monitor sees the measure as Absolute ST.

The Date/Time and Event columns will scroll up/down with the data, but will remain fixed for left/right scrolling. Selecting an event selects an individual event. Positioning the highlight bar cursor with slider or buttons moves it to that event. Slider bar functions complement scrolling buttons, providing quick horizontal and vertical positioning. The highlight bar cursor is always on, and appears at the top of the list whenever the Events List is accessed. The events screen will not update with new events while viewing the events window. The events window must be closed and then reopened in order to refresh the window with new events.

5.5.3.1 Physiological Events

These types of events are threshold violations of the alarm limits either at the ViewPoint Central Station or at bedside.

5.5.3.2 Technical Events/System Events

Technical/system events are used to indicate that there is a problem with the ViewPoint system. An audible tone consisting of two beeps followed by a 12 second pause will sound to notify you when a technical/system event has occurred. This sequence will repeat until the event is acknowledged ("Alarm Muting" on page 1-9).

Technical events are events that are related to a specific patient tile not a physiologic alarm threshold violation. Technical Events are displayed in the Patient Tile. Some examples of technical events are: lead or sensor problems, time day or date changes, patient transfers, discharge, re-admit, standby, SpO₂, and lost communications.

The SPO₂ No Sensor, SPO₂ Sensor Off, Nurse Call, and Attendant Present technical events can be acknowledged by pressing the **MUTE** button in the alarming patient's tile. When these events are acknowledged, the ViewPoint will end these events by stopping all audio and visual alerts of this event even if the condition still exists. This condition will alarm again if the event is resolved and then reoccurs or if another SpO₂ technical event occurs and then the event which was previously acknowledged occurs again.

System events are events that are related to system operation. System Events are displayed in the Status Message Line. Laser Printer out of paper is an example of a System Event.

5.5.3.3 View Waveforms

The view waveforms button shows the waveforms that occurred with the selected event. When viewing waveforms, the digital data section of the Events tab includes an ST lead label that is shown in parentheses. The ST lead label shows the lead from which the displayed data is acquired. The ST lead labels that are available include: I, II, III, aVR, aVF, aVL, and V1.

In the waveform mode, all ST lead labels in the Event tab will include a tag that indicates if the ST that is measured is seen by the bedside monitor as a delta value (-d) or an absolute value (-a).

- A **-d** tag is shown next to an ST lead label when the bedside monitor sees the measure as Delta ST.
- A **-a** tag is shown next to an ST lead label when the bedside monitor sees the measure as Absolute ST.

In the waveform mode, this button is labeled **VIEW LIST** and touching it returns the display to the List mode. When in View Waveform mode, the second button becomes **CALIPERS ON/OFF** button. In the View Waveform mode digital parameters are listed above the waveforms in the order as determined by Trend Setup. If View Waveforms is pressed without first selecting an event, a dialog box will appear with the following message: **Please select event from the list.**

5.5.3.4 Event List Filter Button

The user can choose to view only those events with a specific label or go to a specific time and view the events that occurred at that time. Opening this menu will display filter choices for Time Range, Event Type or All Events. The Event List Filter time format follows the system time.

Time Range

The **TIME RANGE** button (when selected is indicated by a check mark) will cause a date/time menu to be displayed. Enter the desired range times and dates (From/To) for the filter to consider. To enter or change a date or time, touch the black area of each field in order to present a numerical keypad for data entry.

If the **DONE** button is selected and the "To" time is earlier than the "From" time, an error message appears that says the **To' time must be later than 'From' time.** Press the **OK** button to acknowledge this message and change the time frames. After data entry is complete users press the **OK** button in order to return to the Time Range menu. The "To" range time field initially displays the date and time that the menu was accessed.

Event Type

The **EVENT TYPE** button (when selected is indicated by a check mark) will cause the **Parameter Type** box to be displayed. This menu allows users to select a specific parameter to be displayed by choosing from the list provided. Scroll bars are provided to aid in navigating through the parameter list. To select a parameter, users will first touch the desired parameter and press the **SELECT** button. If the parameter does not have a high and low level alarm associated with it, it will immediately be displayed along side the **EVENT LIST FILTER** button. High and Low level events are selected using the **Event Type** menu. This menu allows users to select High, Low and Technical Events for the selected parameter.

All Button

The **ALL** button (when selected is indicated by a check mark) displays all available events for the selected patient regardless of time or parameter. The **ALL** button also removes (resets) the selections from Time Range or Event Type.

Events may be filtered by both time and parameter type by performing both time range and event type operations before choosing the Done button. This will cause a filter to be performed on a specific parameter between a specific time range. Pressing the **DONE** button initiates the selected filter operation. Pressing the **DONE** button without selecting a parameter will cause the filter to be aborted.

5.5.3.5 Delete Events Button

The Delete Events button deletes a range of events, based on a given number of events. The user may choose to delete up to 1,000 events at a time.

- Selecting the Delete Events button will display a menu to enter the desired number of events to delete.
- Pressing the black box below the Number of Events field will present a keypad in which to enter the desired number.
- Pressing **OK** enters the number into the field.
- Pressing the **DELETE** button will cause the ViewPoint system to delete the number of events selected starting with the highlighted event. Deleting one or more events deletes the event from the "Events-List" and "Events-Waveforms". When an event is deleted, it also deletes the colored event mark from the Disclosure display for the event, but it does not effect the numerical or waveform data in the Disclosure tab. Events that are deleted from the Events list are still shown as events in the Trends List.
- If the number of events entered is more than the total number of events to the end of the list, then the delete will wrap to the beginning of the list and continue until the total number is deleted.
- Pressing the **CANCEL** button terminates this operation.

If no event is selected a dialog appears with the message **No event selected. Please select an event from the list using the scroll bar**. Deletes a range of events, based on a given number of events. The user may choose to delete up to 1000 events at a time. Selecting delete events will display a menu that enables users to enter the desired number of events to delete. Pressing the black box below the Number of Events field will present a keypad in which to enter the desired number. Pressing **OK** enters the number into the field.

5.5.3.6 Delete Button

Deletes the event that is currently highlighted, if no event is selected a dialog appears with the message **No event selected. Please select an event from the list using the scroll bar**.

5.5.3.6.1 Printing Events

Events are printed in an Event List Report. An Event List Report can be printed using any of the following buttons:

- **PRINT MORE** in the side bar of the **Events** tab
The **PRINT MORE** button will produce an Events Report dialog box.
- **PRINT CURRENT** in the side bar of the **Events** tab
The **PRINT CURRENT** button will print a one-page report based on the data that is shown on the screen and any successive data that is required to fill the page.

- **PRINT** button in the side bar of the **Events** tab (in the View Waveforms mode)

The **PRINT** button appears in the side bar of the **Events** tab when you are viewing waveforms for a selected event and will generate an Event Zoom In Report. In the **Events** tab, the **PRINT** button is unavailable (grayed out) if there is not waveform data visible for the selected event.

For additional information on printing an Event List Report, “Report Generation” on page 6-1. For additional information on the contents of an Event List Report, “Report Layout and Specifications” on page 10-2.

5.5.3.7 Arrhythmia

5.5.3.7.1 Lethal and Non-Lethal Arrhythmia Alarms

Arrhythmia alarms are classified as lethal and non-lethal. Lethal alarms consist of the Ventricular Fibrillation (V-Fib), Ventricular Tachycardia (V-Tach), and Asystole alarms. Non-lethal alarms consist of Bigeminy, Couplets, Irregular Rate, Missed Beat, Run, Trigeminy, and Triplets alarms. Each of these alarm events is communicated to the user both audibly (beeping sound) and visually (displaying a message in the patient tile).

5.5.3.7.2 Lethal Arrhythmia Alarms

Lethal arrhythmia alarms are latching alarms. Latching arrhythmia alarms end when either: the arrhythmia condition has ended and the user touches the patient's **MUTE** button to acknowledge the alarm, or the patient's **MUTE** button has been pressed to acknowledge and mute the alarm, and the latching arrhythmia condition ends during the alarm mute period. Note that pressing the patient's **MUTE** button stops the sounding of the alarm for the mute duration period but the alarm message in the patient tile is still displayed. If the condition exists after the mute duration period expires, the sounding of the alarm resumes and the alarm must be acknowledged again. Only one lethal arrhythmia alarm can be displayed at a time.

5.5.3.8 Non-Lethal Arrhythmia Alarms

Non-latching arrhythmia alarms end when the arrhythmia condition no longer exists. Note that pressing the patient's **MUTE** button stops the sounding of the alarm for the mute duration period but the alarm message in the patient tile is still displayed. If the non-lethal condition exists after the mute duration period expires, the sounding of the alarm resumes and the alarm must be acknowledged again. Only one non-latching arrhythmia alarm can be displayed at a time. Only the most recent arrhythmia alarm is displayed. If an arrhythmia event occurs after a lethal arrhythmia event has occurred and ended, but before the lethal alarm has been acknowledged (and is therefore still displayed), both the non-lethal arrhythmia message and the lethal arrhythmia message are displayed, toggling, in the message area of the patient tile. Non-lethal arrhythmia alarms are displayed for a minimum of ten seconds, unless preempted by another arrhythmia alarm.

5.5.4 File Folder Tab: Disclosure

This menu provides the ability to review all waveforms and associated numeric information collected from bedside monitors, for a time period of 72 hours (standard). Time format for full disclosure data will follow the system setting for time (either 12 or 24 hour format). The time format in the full disclosure window always shows hours/minutes.

Figure 5-8 on page 5-23 shows an example of the Disclosure tab.

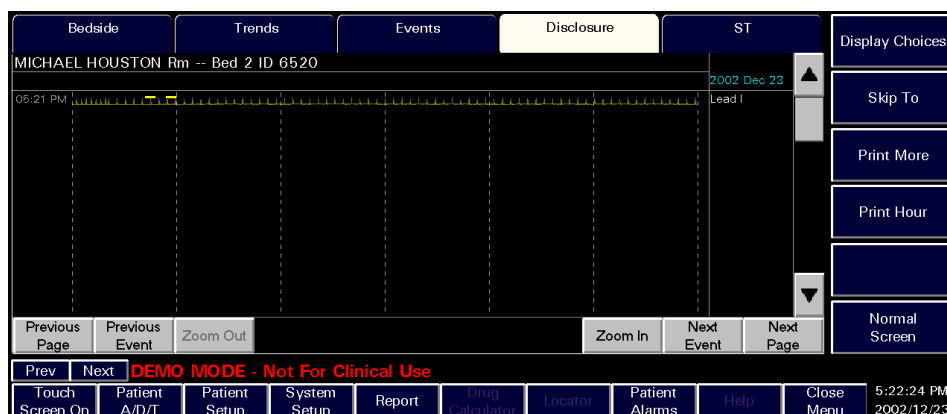


FIGURE 5-8 Disclosure Tab

Figure 5-9 on page 5-23 shows an example of the Disclosure tab (Zoom-In mode).

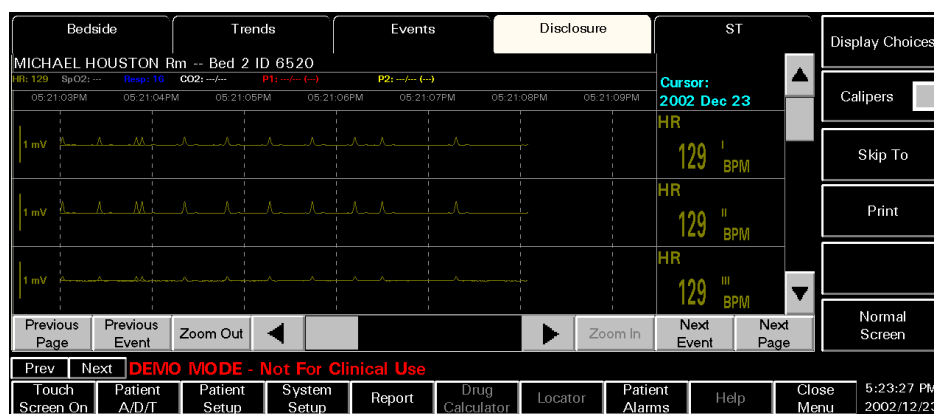


FIGURE 5-9 Disclosure Tab (Zoom-In mode)

When the **Disclosure** menu/display was opened, the current patients' **Bedside Display** would be replaced with the **Full Disclosure** menu.

Data is represented by one-minute intervals horizontally. When the Disclosure menu is selected for a patient, the user views 30 seconds worth of waveform data.

The time displayed will be the first 30 seconds of data with most current data displayed in the lower right hand corner of the display. Full disclosure data is marked to identify specific events which have occurred.

A bar will appear above the full disclosure in the color which represents the event, an Orange bar indicates manually triggered events, Blue bars are for technical/system events, Red and yellow bars indicate the level of physiologic alarm that triggered the event. No colored bar indicates the absence of an event.

EVENT COLOR CODING TABLE (FOR FULL DISCLOSURE)

EVENT	COLOR
Manual	Orange
Level 1 Alarm	Red
Level 2 Alarm	Yellow
Level 3 Alarm	Yellow
Technical	Blue

Data is delayed by two minutes from current “Real Time” acquisition. For example, data acquired at 10:00 pm is not available for view until 10:02 pm.

The user may highlight areas of interest by touching and dragging across the desired time period. Also, the user has the ability to zoom in on a specific time period and view many of the waveforms for that time period. The zoomed display regardless of time period will always display a minimum of 6 seconds of contiguous data.

The ability to choose which time to be displayed in the zoom is made possible by the use of the right side scrolling buttons / slider. While viewing full disclosure no updates to the data presented for display are made. However, data is continuously being stored on the system for future review.

The **NEXT EVENT** and **PREVIOUS EVENT** buttons allow users to navigate based on stored events. Pressing **NEXT EVENT** will advance to the next occurring event. Pressing **PREV EVENT** will navigate to the event previous to the current time. The **NEXT PAGE** and **PREV PAGE** allow the user to access entire pages of information either forward or backwards in time. Events will be marked by red, yellow, blue and orange bars, one second in length, located above the data.

5.5.4.1 Display Choices Button

All waveforms displayed from the disclosure display are determined by **DISPLAY CHOICES**. The user may select which waveforms are displayed and the order in which they appear on the screen. **DISPLAY CHOICES** are configured on a patient by patient basis. Selecting the **DISPLAY CHOICES** button opens the display. To select display priority utilize the priority buttons labeled 1 through 25. For example, if a **lead II** is desired for display as the first waveform, select the number 1 button. Then select the “II” parameter from the list provided. Select the desired parameter or utilize the scroll bars to make a selection. Choosing the **SELECT** button will relabel the priority button to the desired parameter. All 25 choices can be configured in this manner. Selecting the **DONE** button completes the process.

5.5.4.2 Calipers Operation

Figure 5-10 on page 5-25 shows the Caliper option in the Bedside tab.

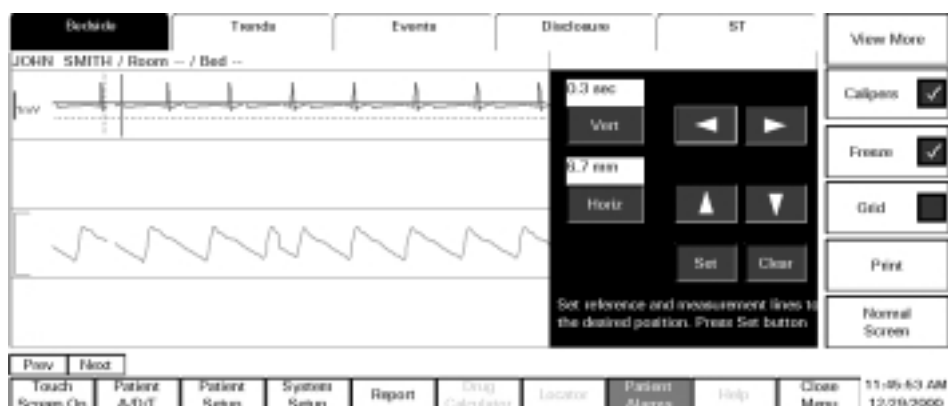


FIGURE 5-10 Caliper option in the Bedside Tab

ViewPoint monitors readout time and amplitude of any waveform acquired in the system by use of, respectively, horizontal and vertical cursors. Available readouts include data obtained from **Bedside** or **Full Disclosure** file folder tabs when zoomed in.

When in the **Bedside View**, the cursor measurement utility can be activated. It can only be activated when the **View** screen is in the frozen condition. Selecting the **FREEZE** button will display the **CALIPERS** button. This button can also be accessed in **the Disclosure** tab when in the zoomed in mode. Selecting the **CALIPER ON/OFF** button causes a pop up window to appear over the numeric portion of current interactive screen, allowing the user to select amp (amplitude) and time cursor lines to read a value. The **reference line** (a broken or dashed line) will appear first. The second line to appear will be the **measurement line** (a solid line). The value will appear in an XY read out in the same box.

Since any of the available waveforms can be selected for measurement, selecting the appropriate waveform in the current interactive screen will lock the cursor to act only on that waveform. Selecting **CLEAR** will allow the selection of another waveform.

The user selects **VERT.** function (time measurement) or **HORIZ.** function (amplitude measurement) depending on which they wish to measure. Selecting the function will automatically bring up a cursor reference line (a dashed or broken line). The user can select the area of reference for the selected waveform and the reference point will move to that location (coarse adjustment). For fine adjustment of the reference line the user may use the **LEFT/RIGHT ARROW** buttons or **UP/DOWN ARROW** buttons to position the reference at exactly the point desired.

Selection of the **VERT.** or **HORIZ.** function will bring up another line, which is the measurement line (a solid line). Positioning of this line will give a read out once the **SET** button is pressed. The reference line represents the 0 value starting point. Course and fine adjustments of the measurement line are the same as for the reference line.

Once positioned the user selects the **SET** button. The value for that measurement is displayed. The values will remain in the window until another reference position is selected.

Selecting the **CLEAR** button will reset the calipers, allowing the user to set a new reference line and perform a new measurement.

Selecting the **FREEZE** button in the **Bedside Interactive** mode will disable the caliper feature. Selecting the **CALIPERS ON/OFF** button will also deactivate this feature.

Calipers operate to an accuracy of +/- 5%.

SKIP TO button does not work when Calipers are on.

If using a mouse, the mouse can position the cursor for both reference and readout. Left clicking the mouse button has the same effect as selecting the **VERT.** or **HORIZ.** buttons from the menu, effectively setting the point.

5.5.4.3 Skip To Button

The **SKIP TO** button allows users to navigate through a monitoring period. To select and view a new time, simply press the **SKIP TO** button. Once pressed a dialog box appears on the screen with areas provided for input of both **time** and **date**. Press the black area under the desired field and an on-screen numerical pad appears. Once the **date** or **time** has been entered select the **OK** button. This removes the keypad from display and enters the new value in the **date/time** field. The desired **hour, minute, day, month** and **year** can be selected. Selecting the **DONE** button advances the display to the requested time period. If the **time/date** requested is out of range of the current data, the **"Time out of range"** error message is displayed.

The Skip to function follows the system's time/date format.

5.5.4.3.1 Printing Disclosure

Disclosure data is printed in a Full Disclosure Report. A Full Disclosure Report can be printed using any of the following buttons:

- **PRINT MORE** in the side bar of the Disclosure tab.
The **PRINT MORE** button will produce a Full Disclosure Report dialog box.
- **PRINT HOUR** in the side bar of the Disclosure tab.
The **PRINT HOUR** button will generate a Full Disclosure Report for the one-hour period prior to the time the report is selected.
- **PRINT** in the side bar of the Disclosure tab (in the zoomed-in mode).
The **PRINT** button is shown in the side bar of the Disclosure tab when you are zoomed-in on a specific waveform and will print a Full Disclosure Zoom-In Report.

For additional information on printing a Full Disclosure Report, "Report Generation" on page 6-1. For additional information on the contents of a Full Disclosure Report, "Report Layout and Specifications" on page 10-2.

5.5.4.4 This section intentionally left blank.

5.5.5 File Folder Tab: ST (Analysis)

Figure 5-11 on page 5-27 shows an example of the ST tab.

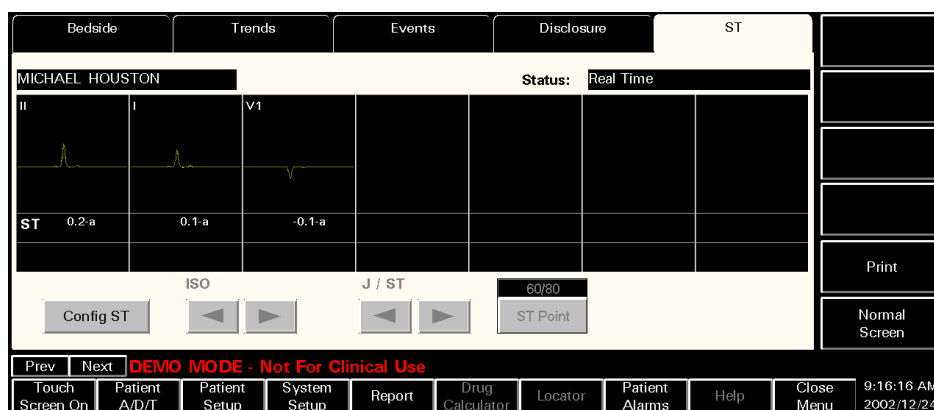


FIGURE 5-11 ST Tab

The ST file folder is used for monitoring the current ST elevation/depression values and viewing the reference and current measurement templates for a patient. The information that is shown in this display is the same analysis that is performed at the patient monitor. No analysis is performed at the ViewPoint Central Station. A patient must be assigned an ST license to be able to view ST analysis information. If the patient has not been assigned a ST license at the Bedside and the ST file folder tab is touched, the error message **“No License”** is displayed. You must go to Bedside and enable this option for the patient.

Opening the ST Display

To open the ST display:

- To open the ST display, touch the ST analysis file folder tab.

Waveform Display and ECG Templates

The ST Waveform window can display up to 3 ECG templates.

The ST tab includes an ST lead label that is shown in parentheses. The ST lead label shows the lead from which the displayed data is acquired. The ST lead labels that are available include: I, II, III, aVR, aVF, aVL, and V1.

All ST lead labels in the ST tab will include a tag that indicates if the ST that is measured is seen by the bedside monitor as a delta value (-d) or an absolute value (-a).

- A **-d** tag is shown next to an ST lead label when the bedside monitor sees the measure as Delta ST.
- A **-a** tag is shown next to an ST lead label when the bedside monitor sees the measure as Absolute ST.

The *Passport 2[®]* provides the following information:

- ST information

When a 12 lead ECG cable is connected to the Passport 2, the Passport 2 will send the 3 most deviated leads (based on the delta ST numbers) to the ViewPoint Central Station for display. The deviation of a lead is calculated based on the delta ST numbers

- The lead numbers that are shown in the window
- The order in which the leads are presented

During acquisition, the status area displays the status message **“Real Time”**. While **Real Time** mode is active, the ISO, J/ST, and ST Point options can be adjusted using the **CONFIGURE** button. The **CONFIGURE** button activates these buttons.

After ST data is displayed, the reference and current ST templates are superimposed upon each other to distinguish changes in ST for all available leads. Different colors are used to distinguish differences in the reference and current templates. Guidelines for template colors include the following:

- Reference templates are displayed in yellow as long as the ECG is not been set to yellow.
- If ECG is set to yellow, the reference template will be set to white (parameter colors are established in the System Setup menu).
- Current templates are displayed in the color that is configured for ECG.
- If there is no change in the ST segment, the green template completely covers the reference yellow/white.
- ST values (current ST level) are displayed below the corresponding templates.
- ST alarms are set based on the Delta ST deviations from the reference ST level.

ST Alarm Processing

ST alarm processing is the way in which alarms are handled by the ViewPoint and Passport 2[®] systems. The settings of the ViewPoint's Bedside Alarm Tracking may cause ST alarm processing to differ for the ViewPoint and the Passport 2[®]. Bedside Alarm Tracking is located in the System Alarms/Alarm Options file folder tab.

- If Bedside Alarm Tracking is ON, the ViewPoint and Passport 2[®] systems will have the same learned ST alarms and ST Alarm Limits. The ViewPoint system and the Passport 2[®] will show the ST alarms at the same time and for the same ST levels. When an ST alarm occurs and is acknowledged it is acknowledged on both the ViewPoint and Passport 2[®] systems. The learned ST level is updated as the current ST value on both systems.
- If Bedside Alarm Tracking is OFF, the ViewPoint and Passport 2[®] systems could have different learned ST values and Alarm Limits. The ViewPoint system and the Passport 2[®] could show the ST alarms at different times and for different ST levels. When an ST alarm occurs and is acknowledged at the ViewPoint system it will not be acknowledged at the Passport 2[®] and visa versa. The learned ST levels at the ViewPoint system and the Passport 2[®] may be updated at different times and with different values.

5.5.5.1 ST Status Message Table

STATUS MESSAGES	DEFINITION
No License	Bedside monitor has no license or ViewPoint Central Station does not have an additional license available
Disabled at Bedside	Bedside has a license that is currently not in use

STATUS MESSAGES	DEFINITION
Real Time	ST data has been acquired
Relearning	ST relearn has been initiated at the Passport 2™
Acquiring ST	Locating the ST templates

5.5.5.1.1 Printing ST Analysis

ST Analysis data is printed in a ST Report. A ST Report can be printed using the following button:

- **PRINT** in the side bar of the ST tab (in the zoomed-in mode).

The **PRINT** button is shown in the side bar of the ST tab when you are viewing ST waveform data and will print a ST Report.

For additional information on printing a ST Report, "Report Generation" on page 6-1 .
For additional information on the contents of a ST Report, "Report Layout and Specifications" on page 10-2.

The Report Generation chapter discusses the types of reports that are available in the ViewPoint Central Station as well as the ways of generating each report. For information regarding the layout and specifications of each report, see "Report Layout and Specifications" on page 10-2.

6.1 Types of Reports

The ViewPoint Central Station system provides both system reports and patient specific reports. The reports that are generated by the system include the following:

- The All Strips Report
- The Equipment Setup Report
- The Event List Report
- The Event Zoom-In Report
- The Full Disclosure Report
- The Full Disclosure Zoom-In Report
- The ST Report
- The Trend List Report

6.1.1 All Strips Report

The All Strips report provides real time data for all available digital parameters and waveform data. The data that is shown in the report is from the 10-second period before the report was generated.

6.1.1.1 How the All Strips Report is Printed

The All Strips report can be printed from the following locations in the ViewPoint system:

- The **PRINT ALL STRIPS** button in the **Report** tab will print an All Strips Report for the selected patient.
- The **PRINT** button in the Interactive Bedside mode of the ViewPoint system will print an All Strips Report for patient that is currently being viewed.
- The **REC** button in a patient tile will print an All Strips Report for the patient specified.
- The **STRIP** button on the *Passport 2®* (either the “remote printing” or the “remote and local printing” option must be enabled) will print an All Strips Report for the patient associated with the *Passport 2®* monitor.
- If the Print on Alarm parameter is enabled, an All Strips Report for the patient with whom this parameter is enabled will be printed when the alarm is violated.
- The **PRINT ALL** button in the Print Options tab will print an All Strips Report for all of the patients that are active in the ViewPoint system.
- The **PRINT** button on the Telepack shall print an All Strips report for the patient associated with the Telepack device.

6.1.2 Equipment Report

The Equipment Report provides a list of the equipment that is currently configured for use with your ViewPoint Central Station. For information regarding the equipment that can be configured for use with the ViewPoint Central Station, see “File Folder Tab: Equipment Setup” on page 3-8.

6.1.2.1 How the Equipment Report is Printed

The Equipment Report is printed using the **PRINT** button in the **Equipment Setup** tab. Printing an Equipment Report using the **PRINT** button prints an Equipment Report.

6.1.3 The Event List Report

The Event List Report is a patient-specific report that provides a list of the selected patient's events. The Event List Report shows both Physiological and Technical/System events.

6.1.3.1 How the Event List Report is Printed

The Event List report can be printed from the following locations:

- The Event tab (**PRINT MORE** and **PRINT CURRENT** buttons).
The **PRINT CURRENT** button produces a one page Event List Report for the data that is currently being viewed.
The **PRINT MORE** button produces the Event List Report's dialog box.
- The **REPORT** menu button.
Printing an Event List Report using the **REPORT** menu button produces the Event List Report's dialog box.

6.1.4 Event List Zoom-In Report

The Event Zoom-In Report provides all of the information that is available for a single Physiological event. The Event Zoom In Report includes digital data and a 20-second snapshot of waveform data.

6.1.4.1 How the Event Zoom-In Report is Printed

The Event Zoom In Report is printed using the **PRINT** button when you are in the Viewing Waveforms mode of the Events tab.

Printing an Event Zoom In Report using the **PRINT** button prints an Event Zoom In Report.

6.1.5 Full Disclosure Report

The Full Disclosure report provides an overview of a patient's disclosure data and the events that correspond with the time period specified.

6.1.5.1 How the Full Disclosure Report is Printed

The Full Disclosure Report can be printed from the following locations:

- The Disclosure tab (**PRINT MORE** and **PRINT HOUR** buttons).
The **PRINT HOUR** button produces a Full Disclosure Report for the one hour period prior to the time the **PRINT HOUR** button was selected.
The **PRINT MORE** button produces the Full Disclosure Report's dialog box.
- The **REPORT** menu button.
Printing a Full Disclosure Report using the **REPORT** menu button produces the Full Disclosure Report's dialog box.

6.1.6 Full Disclosure Zoom In-Report

The Full Disclosure Zoom-In Report provides a closer look at the abnormalities in a patient's waveform data.

6.1.6.1 How the Full Disclosure Zoom In Report is Printed

The Full Disclosure Zoom In Report is printed using the **PRINT** button in the zoomed-in mode of the Disclosure tab.

6.1.7 ST Report

The ST Report provides all of the current ST data in addition to the current and reference templates.

6.1.7.1 How the ST Report is Printed

The ST Report can be printed from the following locations:

- The **ST** tab (**PRINT** button)
- The **REPORT** menu button

6.1.8 Trends List Report

The Trend List Report provides a list of a patient's numeric parameters for the time period specified.

6.1.8.1 How the Trends List Report is Printed

The Trends List report can be printed from the following locations:

- Trends tab (**PRINT MORE** and **PRINT CURRENT** buttons).

The **PRINT CURRENT** button produces a Trends List Report for the data that is currently being viewed.

The **PRINT MORE** button produces the Trends List Report dialog box.

- The **REPORT** menu button.

Printing a Trends List Report using the **REPORT** menu button produces the Trends List Report dialog box.

6.2 Generating a Report

There are several ways of generating reports. Reports are generated from the following locations:

- The **REPORT** menu button
- A File Folder tab
- The Bedside Monitor (either the 'remote printing' or the 'remote and local printing' option must be enabled)
- The Patient Tile (**REC** button)
- Enabling the Print on Alarm Parameter

6.2.1 Menu Button: REPORT

Figure 6-1 on page 6-5 shows an example of the Report tab.



FIGURE 6-1 Report tab Screen

The **REPORT** menu button is used to select and print patient-specific report. Pressing the **REPORT** menu button will produce the Report file folder tab which includes the buttons necessary for report generation. The **PRINT NOW** and **NORMAL SCREEN** buttons are shown throughout the Report file folder.

6.2.1.1 Generating a Report from the REPORT Menu Button

To generate a report from the **REPORT** menu button, you must first select the patient for which to generate the report.

1. To select a patient click on the patient's tile.

If no patient is selected the **"No patient Selected!"** error message is displayed.

If a patient tile is selected the name of the patient is displayed at the top of the report. If a different patient is selected while in the Report tab, the patient identification field is updated.

2. Press a report button to generate a report.

The following buttons can be accessed from the Report menu button:

- PRINT ALL STRIPS
- ST REPORT
- FULL DISCLOSURE REPORT
- TREND LIST REPORT
- EVENT LIST REPORT

When a report button is pressed it is highlighted.

A report button remains highlighted until a different button is selected.

3. Press the **PRINT NOW** button.

If the All Strips or ST reports were selected they are now printed. For information on the layout and the specifications of a report, see “Report Layout and Specifications” on page 10-2.

If a report button is not selected before the **PRINT NOW** button is pressed, the “**Select a report type, then press Print Now**” error message is displayed. Press the **OK** button to close the error message dialog box and select a report button.

4. Additional information is required for the following reports:

- Event List Report (See “Event List Report Dialog Box” on page 6-6.)
- Full Disclosure Report (See “Full Disclosure Report Dialog Box” on page 6-7.)
- Trend List Report (See “Trends List Dialog Box” on page 6-8.)

The Report file folder tab contains the **PRINT NOW** and **NORMAL SCREEN** buttons in the side bar

6.2.1.1.1 Dialog Boxes

In the Report file folder tab, pop-up dialog boxes are deleted whenever a new patient is selected.

6.2.1.1.1.1 Event List Report Dialog Box

The Event List Report provides a pop-up dialog box that is used to define the contents of the report and print/cancel the report. If a new patient is selected while a dialog box is open, the dialog box will close.

The report can be generated for either a selected Number of Events or Number of Hours. To enter a value in the Event List’s dialog box, click in the appropriate field and type in the value using the on-screen keypad. A value can only be entered for one variable (Number of Events or Number of Hours). For example, if a value is entered for the Number of Events, and then a different value is entered for Number of Hours, the original entry is erased.

- The *Number of Events* variable defines the exact number of events to print in the report starting with the most current event.

To generate an Event List Report using a Number of Events:

1. Click in the Number of Events field.

2. Use the on-screen keypad to enter the desired number of events (maximum 1,000).

If the number of events that is entered exceeds the number of events that are in the system, the report will show all available events. For example, if 100 events are entered and only 50 events are in the system, the report will show all 50 events.

3. Press the **PRINT** or **CANCEL** button.

- Press the **PRINT** button to generate an Event List report and close the report dialog box. If a new patient is selected while a dialog box is open, the dialog box will close.

If a time period is not entered before the **PRINT** button is pressed the **“Please select a Print Interval”** error message is displayed. Press the **OK** button to close the error message dialog box and return to the report dialog box.

- Press the **CANCEL** button to cancel the generation of the report and close the report dialog box.
- The *Number of Hours* variable defines a time period during which occurring events should be printed.

To generate an Event List report using a specified Number of Hours:

1. Click in the Number of Hours field.
2. Use the on-screen keypad to enter the desired number of hours (maximum 72 hours).

If the number of hours that is entered exceeds the amount of data that is in the system, the report will only show the available events. For example, if 48 hours is entered and only 24 hours are in the system, the report will only show 24 hours.

3. Press the **PRINT** or **CANCEL** button.

- Press the **PRINT** button to generate the Event List Report and close the report dialog box.

If a time period is not selected before the **PRINT** button is pressed the **“Please select a Print Interval”** error message is displayed. Press the **OK** button to close the error message dialog box and return to the report dialog box.

- Press the **CANCEL** button to cancel the generation of the Event List Report and close the report dialog box.

The layout and specifications of the Event List Report are shown in see “Report Layout and Specifications” on page 10-2.

6.2.1.1.1.2 Full Disclosure Report Dialog Box

The Full Disclosure Report provides a pop-up dialog box that is used to define a time interval for the report and print/cancel the report. If a new patient is selected while a dialog box is open, the dialog box will close. The report can be generated for 1, 2, 4, and 8 hours.

To generate an Full Disclosure Report:

1. Click the button for the number of hours to be shown in the report.

For example, if the **1HOUR** button is selected before the **PRINT** button is pressed, a Full Disclosure report is generated and the report dialog box is closed. The report is generated for the 1-hour period prior to the time when the **PRINT** button was selected.

In the Full Disclosure Report’s dialog box, if the number of hours that is selected exceeds the amount of data in system, the report will show all of the available data. For

example, if the **8 HOURS** button is selected and only 2 hours of data is available in the system, the report will only show 2 hours of data

2. Press the **PRINT** or **CANCEL** button.

- Press the **PRINT** button to generate the Full Disclosure Report and close the report dialog box.

If a time period is not selected before the **PRINT** button is pressed the **“Please select a Print Interval”** error message is displayed. Press the **OK** button to close the error message dialog box and return to the report dialog box.

- Press the **CANCEL** button to cancel the generation of the Full Disclosure Report and close the report dialog box.

For information regarding the layout and specifications of the Full Disclosure Report, see “Report Layout and Specifications” on page 10-2.

6.2.1.1.1.3 Trends List Dialog Box

The Trends List Report provides a pop-up dialog box that is used to define a time interval for the report and print/cancel the report. If a new patient is selected while a dialog box is open, the dialog box will close. The report is generated for 1, 2, 4, and 8 hours.

To generate an Trends List Report:

1. Click the button for the number of hours to be shown in the report.

If the number of hours that is entered exceeds the amount of data that is in the system, the report will only show the available data. For example, if 8 hours is entered and only 2 hours are in the system, the report will only show 2 hours.

2. Press the **PRINT** or **CANCEL** button.

- Press the **PRINT** button to generate the Trends List Report and close the report dialog box.

For example, if the **1HOUR** button is selected before the **PRINT** button is pressed, a Trend List Report is generated and the report dialog box is closed. Data is generated for the 1 hour period prior to the time when the **PRINT** button was selected.

If a time period is not selected before the **PRINT** button is pressed the **“Please select a Print Interval”** error message is displayed. Press the **OK** button to close the error message dialog box and return to the report dialog box.

If the number of hours that is selected exceeds the amount of data that is in the system, the report will only show the available data. For example, if the **8 HOURS** button is selected and only 2 hours are in the system, the report will only show 2 hours.

- Press the **CANCEL** button to cancel the generation of the Trends List Report and close the report dialog box.

For information regarding the layout and specifications of the Trends List Report, see “Report Layout and Specifications” on page 10-2.

6.2.2 Generating a Report from a Tab

Reports can also be generated from the tab that is specific to the report. The following is a list of the ViewPoint Central System reports and their associated tabs:

- The All Strips Report can be printed from the Print Options tab using the **PRINT ALL** button.
- The Equipment Setup Report can be generated from the Equipment tab using the **PRINT** button.
- The Event List Report can be generated from the Events tab using either the **PRINT CURRENT** or **PRINT MORE** buttons.
- The Events List Zoom-In Report can be generated from the Events tab when viewing waveforms. The Events List Zoom-In Report is generated using the **PRINT** button.
- The Full Disclosure Report can be generated from the **Disclosure** tab using either the **PRINT MORE** or **PRINT HOUR** buttons.
- The Full Disclosure Zoom-In Report can be generated from the **Disclosure** tab when in the zoomed in mode. The Full Disclosure Zoom-In Report is generated using the **PRINT** button.
- The ST Report can be generated from the **ST** tab using the **PRINT** button.
- The Trends List Report can be generated from the **Trends** tab using either the **PRINT CURRENT** or **PRINT MORE** buttons.

For information specific to the generation of a reports from a tab, see the section of the manual that is specific to the tab.

6.2.3 Report Generation from Bedside

The All Strips Report can be generated from the *Passport 2®* monitor. When an All Strips Report is generated from the *Passport 2®* monitor, the report is only generated for the selected patient.

There are two ways of generating an All Strips Report from the *Passport 2®* monitor:

- Press the **STRIP** button on the *Passport 2®*.
- Press the **CONT ECG** button on the *Passport 2®*.

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