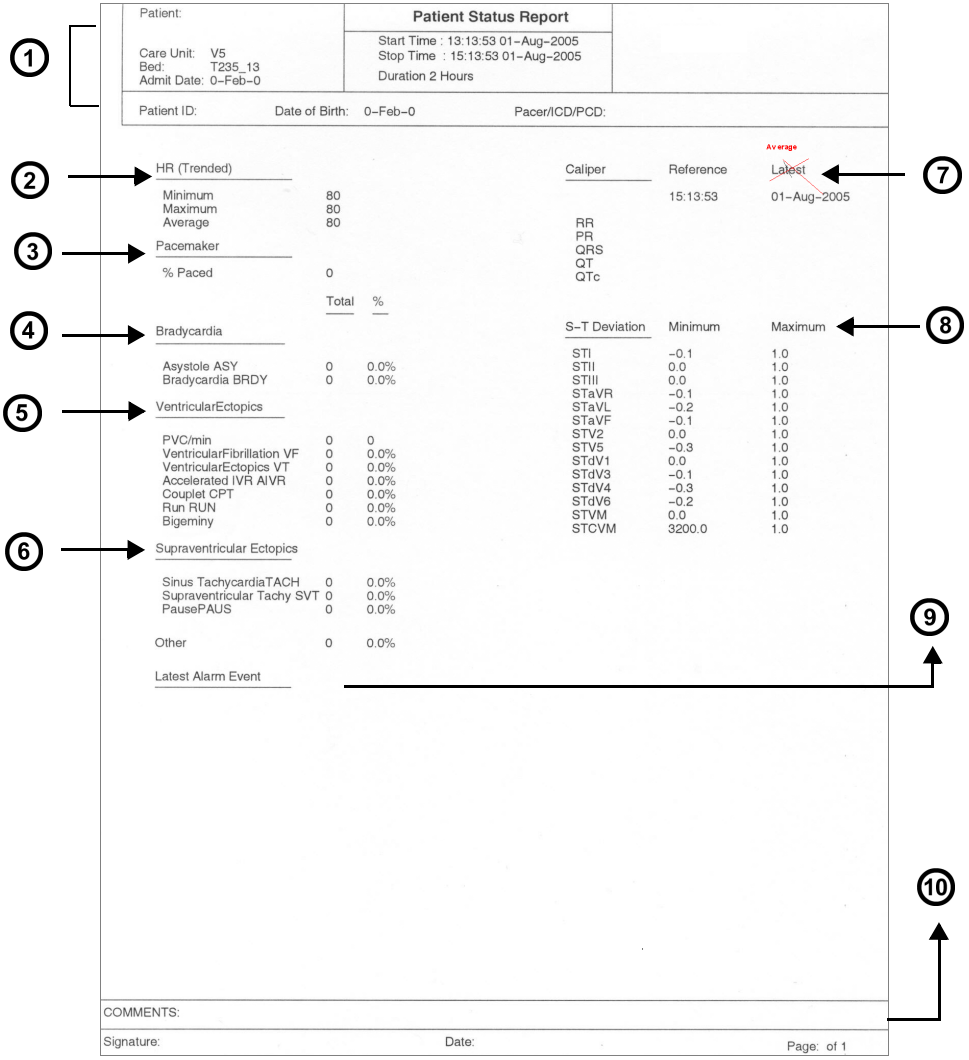
Patient Status

The *Patient Status* section of the **Shift Report** is a summary report focusing on a patient's arrhythmia status. A **Patient Status Report** is also available as an independent report and can be configured to print 2, 4, 8, 12, or 24 hours of data (page 14-23).



1	Header Information	**6**	Supraventricular Ectopics
2	Heart Rate, calculated from trend data	**7**	Caliper Results
3	Pacemaker	**8**	S-T Deviation (from ST trends)
4	Bradycardia	**9**	Latest Alarm Event (in alarm categories)
5	Ventricular Ectopics	**10**	Comment area

Graphical Trends

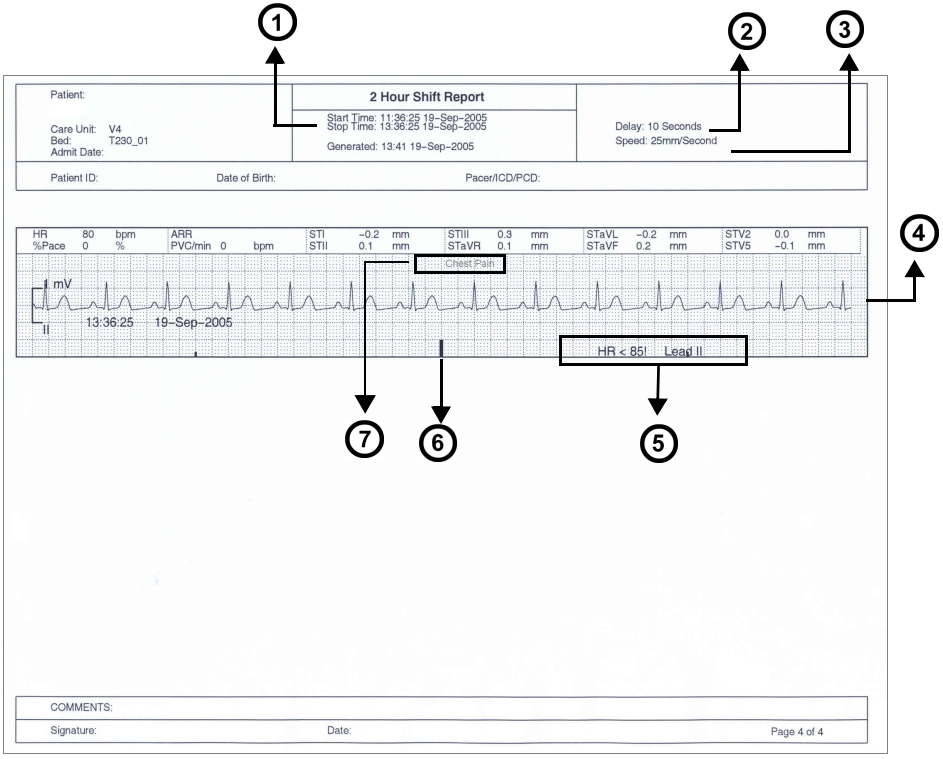
In the Graphical Trends section of the Shift Report each parameter *trend* is plotted according to type.

Parameter Type	Appearance on Trend Graph
Single-value, continuous such as HR	Single, continuous line
Single-value, intermittent such as C.O.	Cross-hairs representing each value
Multi-value, continuous such as ART	Lines with a dotted line in the center indicating the mean value e.g., The top and bottom line can represent systolic and diastolic values.
Multi-value, intermittent such as NIBP	Vertical line with a blank space in the center indicating the mean value

This section resembles the full version Graphical Trend Report in appearance and content (page 14-17) but is numbered and labeled as part of the Shift Report.

Selected Events

Depending on how many events you select (page 16-14) the selected events section may consist of up to three pages (4 waveform strips each). You must select each event that will appear in this section of the shift report by clicking on the icon so that a check mark displays on the icon.



1	Cursor time minus selected report length (2, 4, 8, 12, 24 hrs)
2	Delay
3	Recording speed
4	The waveform contains 5 seconds of pre-event data and 5 seconds of real-time data. The event marks the middle of the waveform.
5	Event Label
6	Event Marker
7	Example of an annotated event

Graphical Trend Report

The Graphical Trend Report is a multi-parameter report containing up to 15 trended parameters from bedside or telemetry patients. The report can be configured to print 2, 4, 8, 12, or 24 hours of Full or Event Disclosure data. The cursor time represents the report *'stop time'*; the report *'start time'* equals *'stop time'* minus the report length.

You can customize the trend selection per patient (page 14-24) or at system setup (page 4-4). The trend scale can be a fixed scale or have autoscale values. When you select **Enable Autoscale** (page 14-24) in the **Trend Order Setup** screen, the low and high scale values are determined by an autoscale factor to the highest and lowest parameter value over the currently selected trend time. To request a Graphical Trend Report, see page 14-22.

Parameter	Autoscale Factor (approximate)
HR	10 bpm
PVC/min	10
% Paced	10%
SpO2	10%
PLS	10
ST	1.0 mm
STVM	0.10 mV
STCVM	
Pressures (including NIBP)	10 mmHg 1 kPa
All others	10

Selected Strip Report

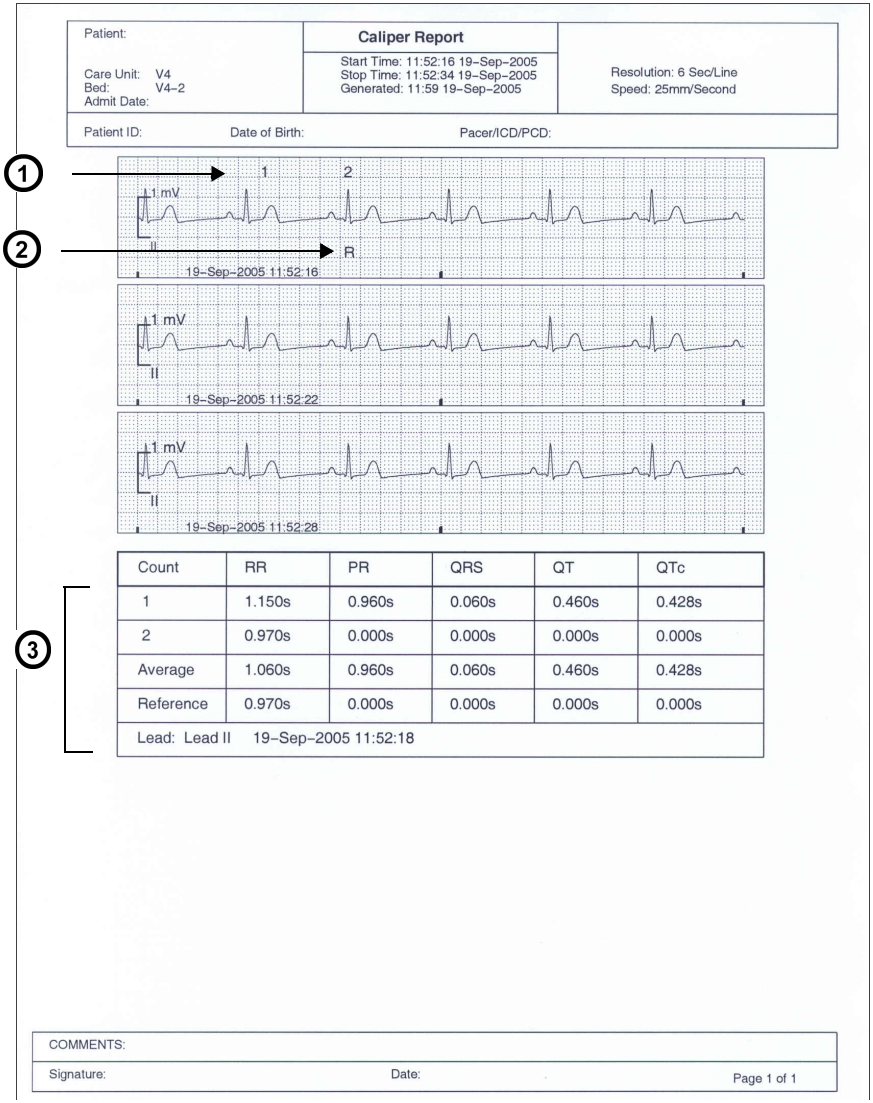
The **Selected Strip Report** allows the user to select a waveform of interest within Full Disclosure and define beginning and ending cursor times (not to exceed one hour). The report can contain 8 seconds to 1 hour of information (8 second default) with 8 seconds of waveform data per row. To request this report, see page 14-23.

Selected Events Report

The **Selected Events Report** may consist of up to six pages (4 event strips per page). You can select and print up to 24 events. Each waveform contains 10 seconds of data, and is annotated with *Lead Printed*, *Lead Processed*, *Event Cause*, *12 of the most recent parameter values*, *Event End Time*, and *Event Date*. If the lead processed is stored in the Infinity CentralStation database, it will be printed on the report. If not, the top lead of the displayed Full Disclosure data will appear.To request this report, see page 14-23.

ECG Caliper Report

The ECG **Caliper Report** includes an 18-second ECG waveform strip and up to ten rows of interval measurements. To request this report, see page 14-24.



1	Count row number displays above measured complex.
2	"R" displays under complex from which reference measurements were taken when it is in the 18-second ECG strip.
3	Summary table from Caliper Review screen can include up to 10 rows of interval measurements.

Ventilator Report

With the VentCentral option you can request a ventilator report for a bedside patient who is connected to a ventilator.

A ventilator report is divided into two sections:

- Parameters And Settings
- Waveforms and Loops

To request a ventilator report, see page 14-22.

Parameters and settings

This portion contains the parameter values, units of measure, the settings, and the time the settings were last changed. The order of the parameters is fixed. Depending on the number of available parameters originating from the bedside monitor, this portion of the report may consist of several pages.

NOTE: Certain parameters, identified as measured values, are derived from other values provided by the ventilator and may not reflect the true measured values. See the operating instructions for your specific monitor for detailed information on derived measurements.

Waveforms and loops

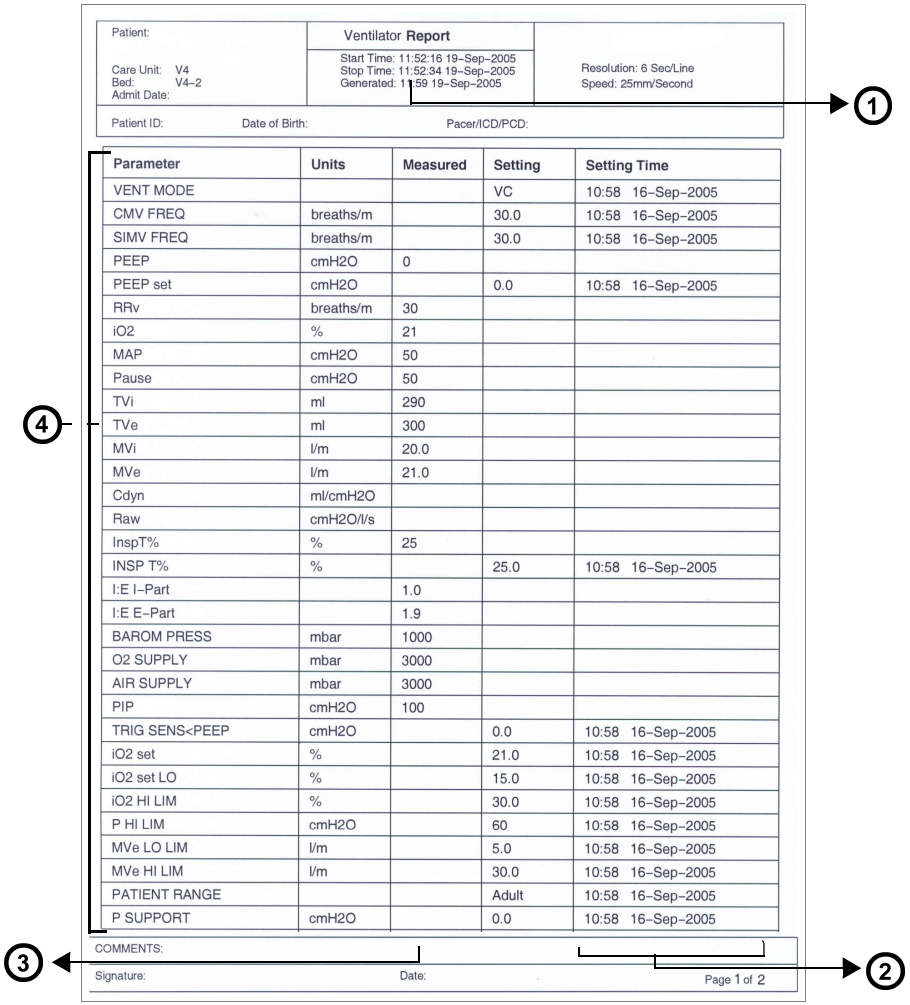
The waveforms and loops page contains the ventilator waveforms and loops displayed in the VentCentral Review screen and may contain up to three waveforms and up to two loops.

Each waveform consists of 7 seconds of data and begins at the time the report is generated. Each loop represents the first detected breath within the 7 seconds of data.

All waveforms are printed at 25mm/sec.

The labels and the scale of the printed waveforms and loops are identical to the displayed waveforms and loops in the VentCentral Review screen.

Parameters and Settings



Patient:

Care Unit: V4
Bed: V4–2
Admit Date:

Ventilator Report

Start Time: 11:52:16 19–Sep–2005
Stop Time: 11:52:34 19–Sep–2005
Generated: 11:59 19–Sep–2005

Resolution: 6 Sec/Line
Speed: 25mm/Second

Patient ID: Date of Birth: Pacer/ICD/PCD:

Parameter	Units	Measured	Setting	Setting Time
VENT MODE			VC	10:58 16–Sep–2005
CMV FREQ	breaths/m		30.0	10:58 16–Sep–2005
SIMV FREQ	breaths/m		30.0	10:58 16–Sep–2005
PEEP	cmH2O	0		
PEEP set	cmH2O		0.0	10:58 16–Sep–2005
RRv	breaths/m	30		
iO2	%	21		
MAP	cmH2O	50		
Pause	cmH2O	50		
TVi	ml	290		
TVe	ml	300		
MVi	l/m	20.0		
MVe	l/m	21.0		
Cdyn	ml/cmH2O			
Raw	cmH2O/l/s			
InspT%	%	25		
INSP T%	%		25.0	10:58 16–Sep–2005
I:E I–Part		1.0		
I:E E–Part		1.9		
BAROM PRESS	mbar	1000		
O2 SUPPLY	mbar	3000		
AIR SUPPLY	mbar	3000		
PIP	cmH2O	100		
TRIG SENS<PEEP	cmH2O		0.0	10:58 16–Sep–2005
iO2 set	%		21.0	10:58 16–Sep–2005
iO2 set LO	%		15.0	10:58 16–Sep–2005
iO2 HI LIM	%		30.0	10:58 16–Sep–2005
P HI LIM	cmH2O		60	10:58 16–Sep–2005
MVe LO LIM	l/m		5.0	10:58 16–Sep–2005
MVe HI LIM	l/m		30.0	10:58 16–Sep–2005
PATIENT RANGE			Adult	10:58 16–Sep–2005
P SUPPORT	cmH2O		0.0	10:58 16–Sep–2005

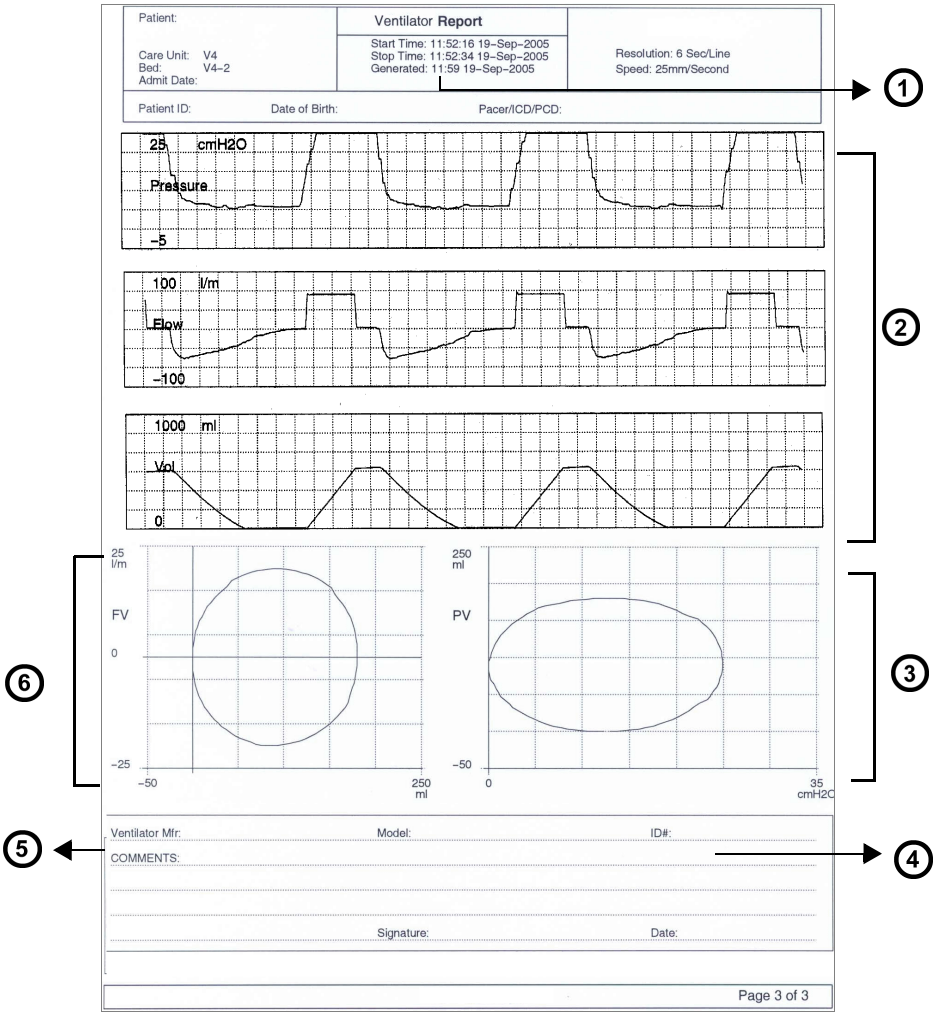
COMMENTS:

Signature: Date:

Page 1 of 2

1	Time that the report request was processed
2	Time the setting was updated or data collection resumed after the monitor was disconnected from the patient
3	Measured parameter values Certain parameters, identified as measured values, are derived from other values or settings provided by the ventilator and may not reflect actual values. See the operating instructions for your specific monitor for detailed information on derived measurements.
4	Parameters measured at the time the report request was processed

Waveforms and loops

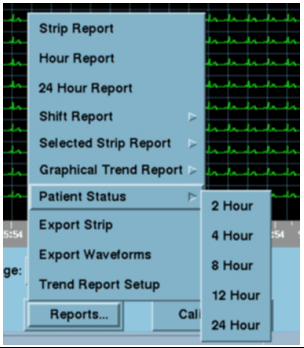


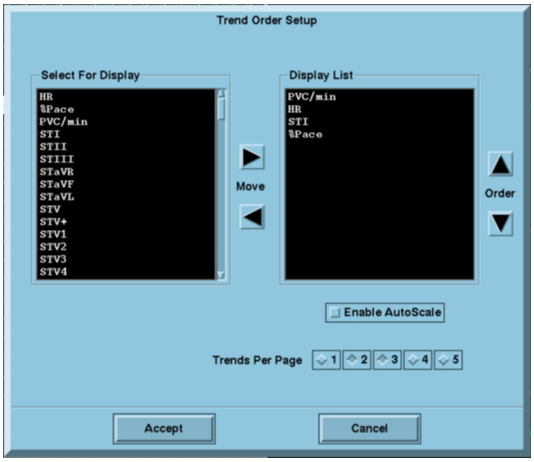
1	Time that the report request was processed
2	Top 3 waveforms selected in VentCentral screen
3	Pressure Loop (represents the first breath)
4	Area to record Ventilator Identification Number
5	Area to record Ventilator manufacturer
6	Flow Loop (represents the first breath)

Requesting Recordings and Reports

NOTE: The print queue can handle multiple report requests. You are notified when the print queue is full, and must wait until some reports print before requesting more.

Recording/Report	Required Steps
Timed recording (from Main Screen)	For an individual patient: • Click on the **REC** button in the patient's parameter. If the patient is discharged, in *Standby*, or waveforms are stopped, the **REC** button is ghosted and you cannot request a timed recording.
	For all patients admitted to Main Screen: • Press the keyboard F11 key.
NOTE: ● If a recording was previously requested for a patient from Main Screen or the patient's waveforms are stopped, no recording is printed for that patient. ● If the Infinity CentralStation is operating in Dual Display mode, recordings are only printed for patients of the screen in which the mouse pointer is located at the time of the request.	
Timed recording (from Bed View)	• Click on **Record** on the menu bar.
Timed manual recording (from transmitter)	• Press transmitter recording button for less than 3 seconds.
Automatic alarm recording	Automatically generated timed recordings are described in Chapter 13 and Chapter 10.
Continuous recording	• Click on the **CONT** button. If the patient is discharged, in *Standby*, or waveforms are stopped, the **CONT** button is ghosted and you cannot request a timed recording.
Continuous recording (from transmitter)	• Press transmitter recording button for more than 3 seconds.
Print Screen	Main Screen • Press the keyboard **Print Screen** key. Bed View 1.Click on **View** in the menu bar. 2.Click on the desired menu selection. 3.Click on **Print in the Bed View menu bar**. 4.Click on **Bed**.
NOTE: If the **Print** button is ghosted, the **Printer Connected** setting is **Off** in the Configure Central menu (page 18-3).	
Simultaneous ECG Report	1.Open patient's Bed View Screen. 2.Click on **Print in the Bed View menu bar**. 3.Click on **ECG Report**.
Ventilator report	1.Open the **Ventilator Settings Review** Screen (page 17-8). 2.Click on **Report**.

Recording/Report	Required Steps
	Full Disclosure Reports
• Strip Report • Hour Report • 24 Hour Report	1.From the **Full Disclosure** screen (page 16-7) click on **Reports...** 2.Click on and select desired report. If you request a **24 Hour Report** a popup displays to alert you that this report will keep the printer busy. You must confirm your request by clicking on **OK** in the popup.
NOTE: You can change the cursor time by clicking on it.	
• Batch Shift Reports	1.Open the **Setup Central** screen (page 4-2). 2.Click on **Batch Shift Reports**. The report length selections display. 3.Select a report length (2, 4, 8, 12, or 24 Hour). 4.Click on **Accept** to save the setting. 5.Press **F9** on your keyboard.
• Shift Report • Patient Status Report	1.From the **Full Disclosure** screen (page 16-7) click on **Reports...**. The **Reports** menu displays. 2.Click on and select the desired report. 3.Select a report length from the menu (2, 4, 8, 12, or 24 Hour). 
• Selected Strip Report	1.From the **Full Disclosure** screen (page 16-7) click on **Reports...**. 2.Select a report length from an entry on the menu (1, 5 10, or 60 minutes, and Selected). The menu item 'Selected" is ghosted until a second cursor is defined. **For a *Selected* report length** 3.Right-click on the waveform to set a second cursor. The second cursor displays with dotted lines and can represent either the *Stop* or *Start Time* depending on its location relative to the first cursor. A confirmation popup appears that shows ***Start Time***, ***Stop Time***, and ***Total Pages***. 4.Click on **Continue** or **Cancel** in the popup.
NOTE: • You cannot set the cursors so that the report is longer than 60 minutes or less than 2 seconds. A popup will display that cancels the selected period. • The minimum report length is 8 seconds. Also, the report length will automatically adjust so that each row will contain a full 8 seconds of ECG data.	

Recording/Report	Required Steps
• Graphical Trend Report	On a **Graphical Trend Report**, which is also included in a **Shift Report,** you can print a report with the system-assigned trend settings (page 4-4) or you can configure the report to display particular trends for the individual patient as follows: 1.From the **Full Disclosure** screen (page 16-7) click on **Reports...**. From the **Reports** menu click on **Trend Report Setup.** The **Trend Order Setup** screen displays.  2.Select the trends you want to display and move them to the **Display List** window. The trends typically display on a fixed scale, but you can change the display by enabling autoscale. 3.If you want to change the display scale to autoscale, click on the selection box next to **Enable AutoScale**. 4.Select a number of **Trends Per Page** for the report. 5.Click on **Accept** to keep the trend order setup or on **Cancel**.
• Caliper Report	1.Open the **Caliper Review** screen (page 16-24). 2.Click on **Print Report.**
Event Disclosure Reports	
• Event Disclosure Strip Report	1.From the **Event Disclosure** screen (page 16-7) click on the button, **Reports...** 2.Click on **Strip Report**.
• Event Disclosure Shift Report • Event Disclosure Graphical Trend Report	1.From the **Event Disclosure** screen (page 16-7) click on the button, **Reports...**. 2.Click on and select desired report. 3.Select a report length from the menu (2, 4, 8, 12, or 24 hr).
• Selected Events Report	1.From the **Event Disclosure** screen (page 16-7) click on the button, **Reports...**. 2.Click on **Selected Events Report**. 3.Select the events for the report. A popup displays the number of events selected. 4.Click on **Accept** to continue or on **Cancel**.

Canceling a Recording

Recording Type	Cancel in Main Screen	Cancel in Bed View	Cancel at the Recorder
Manual timed recording	Click on patient(s) **REC** key to 'deselect'.	Click on the **RECORD** key to 'deselect'.	Press **STOP** key.
Alarm recording	Not possible	Not possible	Press **STOP** key.
ARR event recording	Not possible	Not possible	Press **STOP** key.
Continuous recording	Click on patient's **CONT REC** key to 'deselect' it.	Not possible	Press **STOP** key.

Actions that Affect Recordings

Action	Effect on Pending Recordings	Effect on Recordings in Progress
Patient Discharge	Pending recordings discarded	Recording is canceled.
Edit patient's demographic data	No effect	No effect
Patient monitoring put in standby mode	No effect	Recording is canceled.
Restore factory defaults	Pending recordings discarded	Recording is canceled.
Configuration change of Main Screen resulting in removal of a patient	Patient's pending recordings canceled	Recording is canceled.
Change in scale settings or parameter order (parameters might become available/ unavailable due to restored/ missing signals)	No effect	Recordings will continue but waveform and parameter data for any removed parameter appear as blanks. Added parameters are *not* included on an in-progress recording.
Recorder assignment change	No effect. Additional recordings are printed on the new recorder.	No effect on recordings
Network time/date change	No effect on active or pending recordings. All new and continuous recordings in progress reflect the new date/time.	Continuous recordings reflect the change immediately (as will all future timed recordings).
R 50 recorder becomes unavailable, runs out of paper, or jams	No effect	Recording is not lost, but routed to another assigned recorder, or stored for later printing when the recorder becomes available.
Remote device requesting a recording of a local patient goes offline	Deletes all recordings associated with this device	Recording is canceled.
Patient disconnect for transport	Cancels all pending recordings for that bed	Recording is canceled.

Recording Status Messages

Recorder Status Messages			
Status Message	**Tone**	**Description**	**Action**
• *<xxxx> Recording Request Accepted*[1] • *Cont. Recording Now Timed (for Gamma/Gamma XL/Vista monitors only)* • *<xxxx> Report Request Accepted*[2]		Request is accepted, but stored until a printing device is available.	None
• *<xxxx> Recording Started*[1] • *<xxxx> Report Request Started*[2]		Request is being printed.	None
• *<xxxx> Recording Finished*[1] • *<xxxx> Report Request Finished*[2]		Printout is finished or is stored.	None
• <xxxx> Report Request Canceled - Queue full[2]		Report is canceled due to a full print queue.	None
<xxx> Disconnected[3]	Advisory	Recorder(s) not connected to the network.	Connect the recorder.
• *<xxxx> Recording Interrupted*[1]		Recording stalled because recorder is disconnected or out of paper, its door is open, or an error occurred during data transmission.	Contact the Hospital Biomedical Engineering Dept.
<xxx> Door Open[3]	Advisory	Recorder door open	Close door.
<xxx> Out Of Paper[3]	Advisory	Recorder needs paper.	Replace paper.
<xxx> Failure[3]	Serious	Recorder failed.	Take recorder out of service and contact service personnel.
<xxx> Offline[3]	Serious	Recorder is offline. Recorder communication with the network failed.	Contact the Hospital Biomedical Engineering Dept. to check network connection.
<xxx> Duplicate Address[3]	Serious	Recorder detected duplicate address.	Contact the Hospital Biomedical Engineering Dept.
Recorder Not Assigned	Attention	No recorder assigned.	Assign a recorder (page 4-5)

Recorder Status Messages			
Status Message	**Tone**	**Description**	**Action**
Recording Request Not Accepted	Attention	**Bedside** monitor's print queue is full, or **telemetry** patient's recording is requested within 5 seconds of request for a higher-priority recording.	Wait until some of the pending recordings are printed before requesting another recording.
Recording Status Unknown - Connection Failed	Attention	Recording status unknown due to failed bed connection (telemetry or bedside).	Contact the Hospital Biomedical Engineering Dept.
Cursor out of Range	Attention	More than 60 minutes of data is defined by Selected Strip Report cursors.	Set cursors for 8 seconds to 60 minutes of FD data.

[1] <xxxx> represents recording title.
[2] <xxxx> represents report title.
[3] <*xxx*> represents device/host label.

Printer Status Messages			
Status Message	**Tone**	**Description**	**Action**
Print Request Finished		Request is complete.	None
Printer Not Configured	Attention	No printer is configured at the Infinity CentralStation.	Configure the printer (page 18-4).
Print Request Not Accepted - Queue Full	Attention	Print screen request was rejected because the print queue handles one request at a time.	Wait until previous screens complete printing before requesting another.
Printer/Communication Error	Attention	Communication to network is faulty.	Consult the Hospital Biomedical Engineering Dept.
Printer Selection Failed	Attention	Selected printer is not set up properly.	Consult the Hospital Biomedical Engineering Dept.

15 Trends

Overview

Trend information is available at the Infinity CentralStation for remote viewing of bedside and telemetry devices.

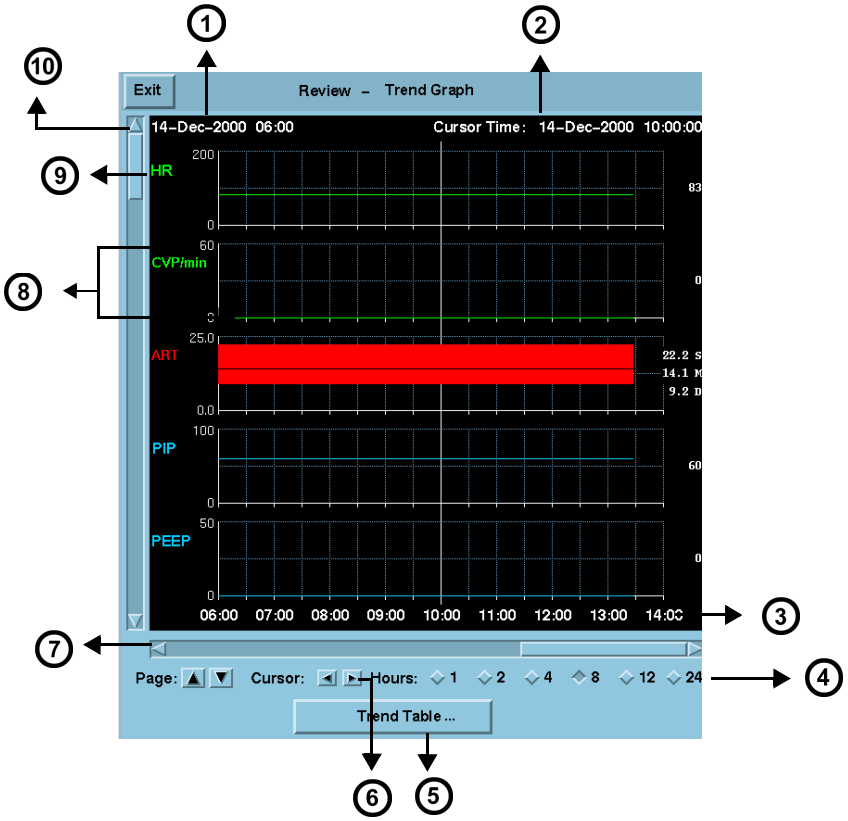
Accessing a Patient's Trends

1. Open the patient's Bed View screen.
2. Click on **Review**.
3. Click on **Trend Graphs...** or **Trend Table...**.

When you open the Trend Graphs screen, data is centered around the cursor time.

Trend Graphs

Trend graphs show stored trend data for each parameter. Each trend page can accommodate up to five parameter graphs that may be blank if the parameter is not selected for trending. Trends are updated automatically, with the most recent data entering continuously on the right. When you click on the trended parameter label, the scale toggles between *fixed* and *autoscale* values (page 14-17).



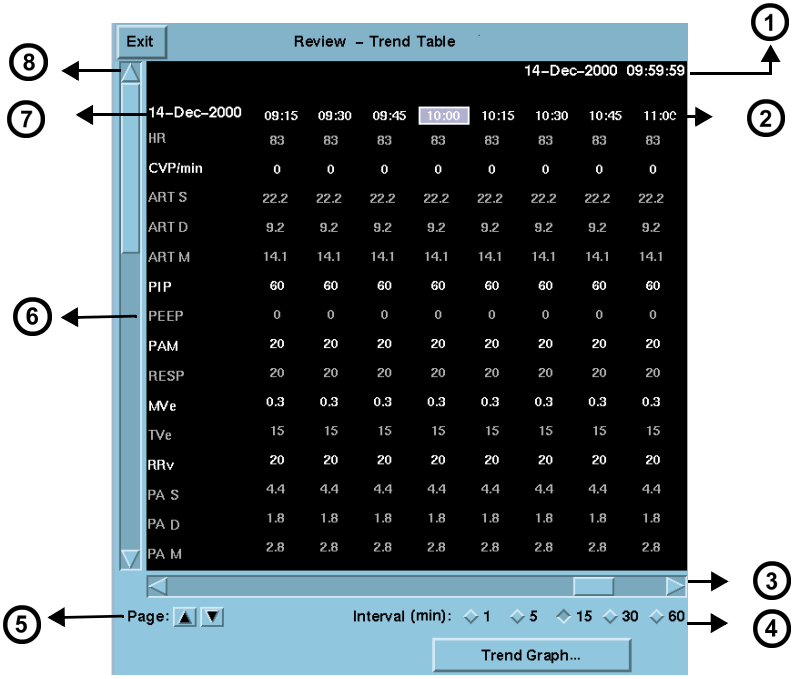
1	Start date/time of Trend data	**6**	Cursor scrolling keys
2	Time and date corresponding to current cursor position	**7**	Horizontal arrows scroll time periods
3	Time labels	**8**	Interactive scale permits selection of: -autoscale or fixed scale (telemetry patients) -autoscale or bed scale (bedside patients)
4	Radio buttons to select graph time period	**9**	Parameter label (click on Parameter Label to autoscale)
5	Opens Trend Table	**10**	Vertical arrows scroll one graph at a time

Parameter Display Order and Trend Scales for Telemetry Patients

Parameter	Display Order	Upper/Lower Scale
HR	1	0 to 200 beats/min
PVC/min	2	0 to 60
% paced	3	0 to 100%
SPO_2 (SPO_2*)	4	50 to 100%
PLS (PLS*)	5	0 to 200 beats/min
NPB	6	0 to 250 mmHG
STI	7 - 26	-5 to 5mm or -0.5 to 0.5mV
STII		
STIII		
ST aVR		
ST aVL		
ST aVF		
ST V		
ST V+		
ST V1		
ST V2		
ST V3		
ST V4		
ST V5		
ST V6		
ST dV1		
ST dV2		
ST dV3		
ST dV4		
ST dV5,		
ST dV6		
ST VM	27	-10.0 to10.0 mm or -0.10 to 0.10mV
ST CVM	28	

Trend Table

Each trend table row shows a parameters values; each column shows a trend data set for all parameters at that time. If a parameter is assigned to trending but cannot be trended, the row lists the parameter label but values are blank. Regardless of the selected interval, a trend table displays up to 8 data columns. A trend table may also represent special events (page 15-7).

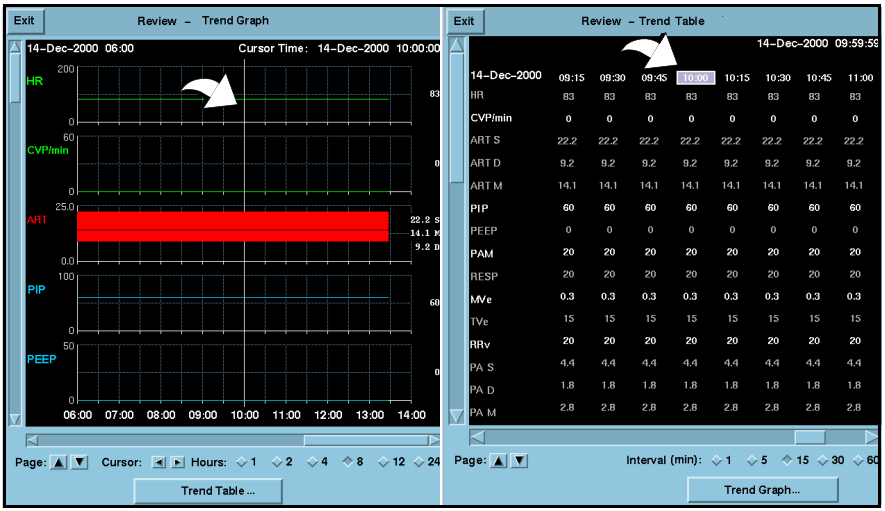


1	Date/time of cursor position	5	Permits page scrolling
2	Time stamps	6	Parameter labels
3	Horizontal arrows scroll time columns	7	Start date/time of trend data
4	Radio buttons for selecting time period	8	Vertical arrows scroll rows of data

- Trend values appear in groups of associated parameter rows.
- Discrete events such as NPB or CO measurements cause a set of trend data to be stored for all parameters. Such data appears as a separate trend column a with a green time stamp heading. This is also true when a mini-calc computation is initiated on an Delta/Delta XL/Kappa/GammaX XL monitor.
- The trend table updates automatically whenever an interval elapses. The most recent column is at the right of the screen.

Trend Cursor

On a trend graph, the cursor appears as a full-screen white vertical line; on a trend table the cursor is the highlighted column time. Cursor time displays in the upper right part of the screen.



- When using the time anchor function between Full Disclosure, Event Disclosure and trends, the cursor time will match one of the *trend table* column time stamps. The column time is highlighted and appears in the center of the trend table screen.
- If the cursor time does not exactly match one of the columns in the trend table, cursor time is displayed but no column is highlighted. Click on any column time to highlight it.
- If the cursor time is not within the time span of the current trend page, the cursor time displays but the cursor does not. Scroll to the desired data to display the cursor on the current trend.
- If the cursor time is older than any of the available trend data, the oldest trend data is displayed without the cursor.
- 24 hours of trend graph data is displayed. One hour of tabular trend data is displayed.

Representation of Special Conditions

Condition	Representation in Trend Table		Representation in Trend Graphs	
	Telemetry Patients	**Bedside Patients**	**Telemetry Patients**	**Bedside Patients**
Discrete trend samples such as those associated with NPB and CO		Column designated with a green time stamp		Vertical line with a gap in the center indicating the mean value
A trend event stored at Delta/Delta XL/Kappa bedside monitor		Column designated with k and a green time stamp		Not shown in graphs
Physiological conditions such as an asystole or an apnea	• ASY = Asystole • VF = ventricular Fibrillation	• ASY = Asystole • FIB = Ventricular Fibrillation • APN = Apnea	• Parameter value = 0	• Parameter value = 0 • Parameter value = 0 • Parameter value = 0
No parameter could be derived	* * *		Blanks in the graphs	
Lead-Off condition	*L*	***	*L*	***
Out-of-range values	**+ + +** (high) or **- - -** (low)		Blanks (Move the cursor over the blanks to display actual values.)	
Artifact	*A*	***	*A*	***
Lead wires, electrodes are unplugged	*U*		*U*	
Hardware failure	*F*		*F*	
Interference	*I*		Blanks in the graphs	*shaded*
No signal	*N*	Blank spaces	Blanks in the graphs	
Time change at bedside monitor		Yellow line between trend columns		Blank spaces in the graph

Condition	Representation in Trend Table		Representation in Trend Graphs	
	Telemetry Patients	**Bedside Patients**	**Telemetry Patients**	**Bedside Patients**
A trend event has been stored by initiating a mini-calc computation at the bedside.		Column designated with this symbol ◀ and a green time stamp		not shown in graphs
Change in units of measure	New units take effect during the next patient admission.		New units take effect during the next patient admission.	
Power loss in server	Blank spaces are stored in place of trend values			
Telemetry receiver goes offline.	Blank spaces instead of trend values		Blank spaces instead of trend values	
Relearning of ST complexes	R		Vertical dotted line that extends through the entire graph	
Changing of ST measuring points	CHG		Vertical solid line that extends through the entire graph	

16 Full/Event Disclosure

Overview

The Infinity CentralStation has the ability to store Full Disclosure waveforms continuously for a minimum of two hours to a maximum of 72 hours, depending on the configuration. The number of waveforms stored in Full Disclosure depends upon the configuration also. Event Disclosure is storage of arrhythmia, alarm events, or manually triggered events. Depending upon the license option, storage capacity for Event Disclosure is two to 72 hours and up to 1000 events per patient.

Full/Event Disclosure Census Operations

Accessing the Census Screen

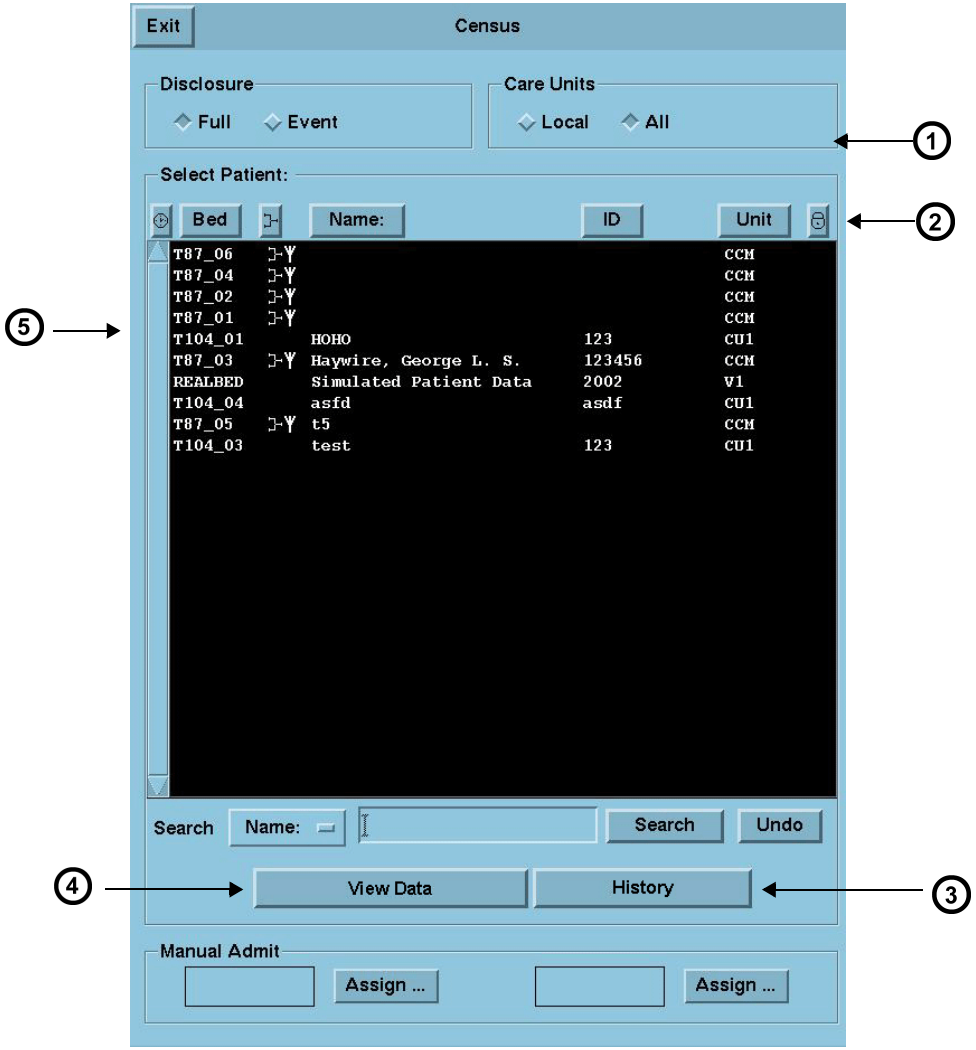
From Bed View:

1. Click on **Review**.
2. Click on **Full Disclosure...** or **Event Disclosure...**.
3. Click on **Census** in the menu bar.

From Main Screen:

1. Click on **View**.
2. Click on **Full Disclosure...** or **Event Disclosure...**.

Census Screen Illustration



1	**Local** - all patients with Full/Event Disclosure records on local Infinity CentralStation **All** - all patients with Full/Event Disclosure records on the Infinity Network
2	Click on heading to sort columns
3	Opens selected patient's **History** window
4	Opens Disclosure Review Screen
5	Census Screen patient list

Census Screen Selection Description

	Selection	Description
Disclosure	**Full**	Full Disclosure data
	Event	Event Disclosure data
Care Units	**Local**	Patients with disclosure records being stored in the database of the Infinity CentralStation currently being used
	All	Patients with disclosure records accessible on the Infinity Network
Select Patient: Available patient records are listed and can be sorted by clicking on one of the headings.	**Record Lock** 	Denotes a “locked” record. Up to 16 records may be locked at one time.
		Time Disclosure record was acquired Sort order places most recent record first.
	Bed	Infinity Network bed label
		Denotes *Active/Inactive* status When the symbol displays, disclosure data collection is active.
	Name	Patient Name
	ID	Patient ID Number
	Care Unit	Care Unit Label
Search	• **Name** • **ID** • **Bed**	Selects field that will be searched for keyword entered in the text entry box
	text box	Text entry box for keyword search criteria (20-character maximum)
	Search	Activates search function for information entered in to text box
	Undo	Returns Census Screen
View Data	Opens selected patient’s disclosure review screen (Full or Event)	
History	Opens selected patient’s disclosure history screen	
Manual Admit	**Assign...**	Manually admit up to 2 additional patients to Disclosure data collection (See page 16-6)

Admitting a Patient to Full/Event Disclosure

Full/Event Disclosure storage begins automatically when a patient is admitted at the Main Screen of the Infinity CentralStation. There are two additional Manual Admit records for patients within a Monitoring Unit, but they may not be added at the Main Screen.

NOTE: A Monitoring Unit is a logical group of beds that provide patient monitoring services such as alarm annunciation, recordings and remote control to its members.

Data Collection Rules

A patient remains admitted to the Infinity CentralStation and data storage continues for as long as the patient remains on the same monitor on the Infinity network.

If the patient leaves the Monitoring Unit and returns with the same bedside monitor (Pick and Go) or to the same Infinity CentralStation, data storage resumes automatically when the patient is reconnected to the Infinity Network. If the patient's monitor/Infinity CentralStation is different, the new care unit data is linked to the previous data set and is available on the patient's Full or Event Disclosure Review screen.

NOTE:

- If the bedside monitor is disconnected for a PICK AND GO purpose and is reconnected to the network, Disclosure storage resumes automatically.
- Whenever you remove a bedside monitor from the network, small gaps will appear in the Full Disclosure waveforms.

Once the Full/Event Disclosure capacity is reached (4, 8, 12, 16, or 32 patients, depending on server option) new patients can be admitted as patients are discharged and slots become available.

The Infinity CentralStation database permits storage of "*active*" and "*inactive*" patient records. The total number of "*inactive*" records available is calculated using the formula:

64 – (n +2), with "n" equal to the number of active patients.

"*Inactive*" records are included in the Census Screen patient list and have no "active data collection" symbol (16-4). Stored waveforms for patients who are removed from Main Screen are saved and sorted according to time spent, and have an inactive status. As soon as the storage capacity is reached, the oldest data is replaced by the most recent. Each inactive record deletes automatically after 72 hours, except when the record is locked (16-4).

To Manually Admit a Patient:

You can admit two additional patients to Full/Event Disclosure as follows.

1. Open the Census screen (16-2).
2. Click on the button labeled **Assign...** in the **Manual Admit** section of the **Census** screen.

   The *Manual Assign Bed* popup displays
3. Double-click on the patient you wish to admit, or

   Highlight the patient you wish to admit and click on **Accept**.

Accessing Disclosure History

1. Open the Census screen (16-2).
2. Highlight the desired record in the Census screen patient list (16-3).
3. Click on History.

   The *Patient Care History* popup displays.
4. Select the record you wish to view.
5. Click on **View Data**.

Locking a Full/Event Disclosure Record

You can lock up to 16 disclosure records in each Infinity CentralStation database. When you **lock** the record, data will not be automatically deleted. When all 16 locks are used, the button is ghosted.

To Lock/Unlock a Record:

1. Access the *Patient Care History* popup.
2. Select the record you wish to lock or unlock.
3. Click on the **Lock/Unlock** toggle button.

NOTE: If **Clinical Password** is enabled on the **Biomed - Configure Central** screen (18-3), you will need that password to unlock a record.

Accessing the Full/Event Disclosure Review Screen

From Main Screen:

1. Open the Census Screen (16-2)
2. Highlight a record in the Census screen patient list (16-3) to activate the **View Data** button.
3. Click on **View Data** to display the Full/Event Disclosure Review screen.

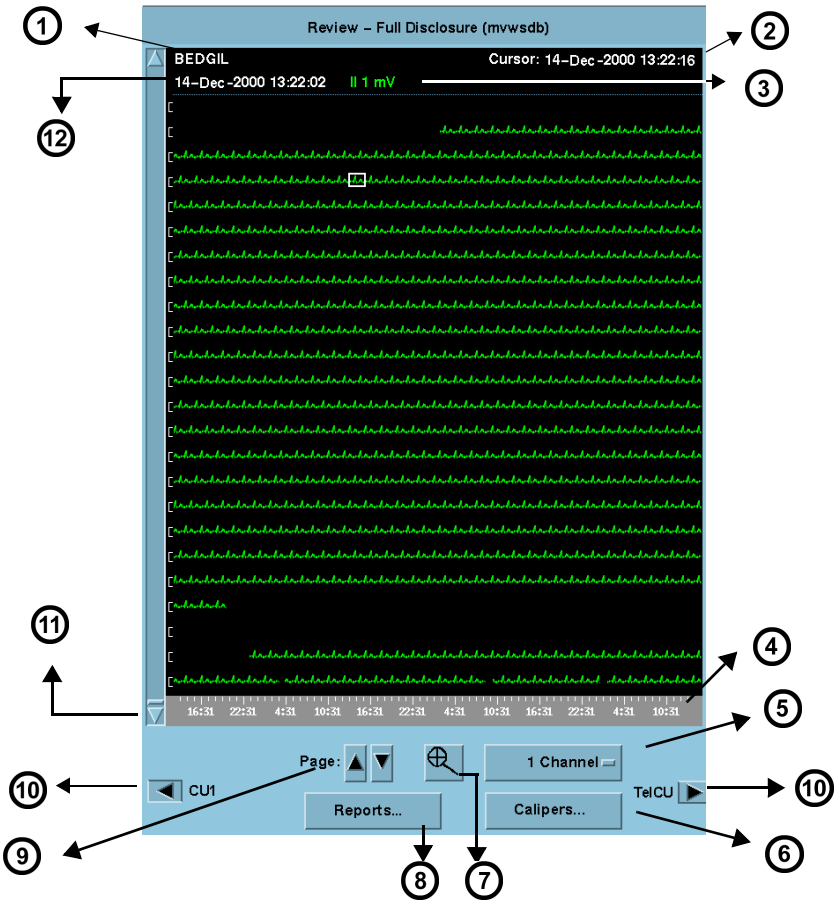
From Bed View:

1. Click on **Review**.
2. Click on **Full Disclosure...** or **Event Disclosure...**

The Full Disclosure screen displays in compressed screen (zoom out) format.

NOTE: When moving between Disclosure screens and other screens (such as Trends) near a system time change, time stamps may be slightly different on the two screens. This occurs because the Infinity CentralStation and the bedside monitors have different methods of annotating time. These time differences do not affect the displayed data which *correlates exactly in both applications* to an internal time stamp.

Full Disclosure Review Screen

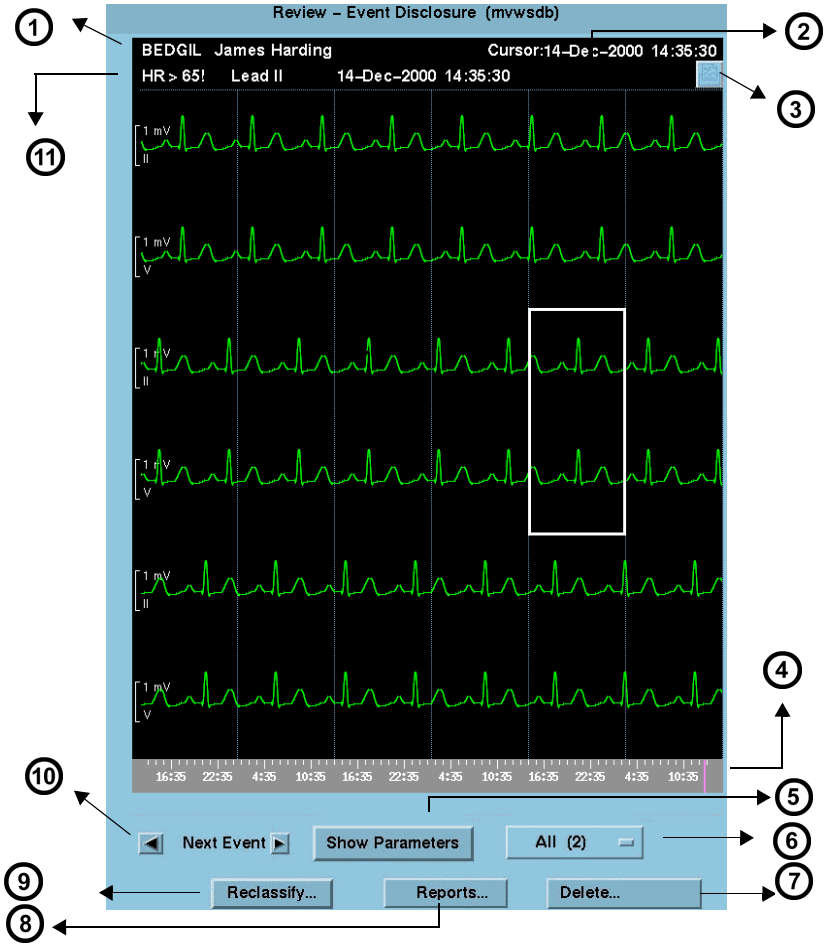


1	Patient Identification	**7**	Selects viewing mode (Zoom In or Zoom Out)
2	Time/date corresponding to cursor position	**8**	Generates Full Disclosure reports
3	Gain setting/lead label	**9**	Navigates by page
4	Time Line reflects Full/Event Disclosure Storage Option (16-1) When navigating through care units the time line changes to reflect the storage time of the selected care unit	**10**	Permits scrolling through care unit data when electronic patient transfer or manual transfer When there is no *previous* or *next* care unit data, the arrow is ghosted and no care unit label displays.
5	Selects number of waveforms to display	**11**	Vertical scroll bar
6	Opens ECG Caliper Tool Screen	**12**	Time/date of oldest displayed data

All time changes that occur at the Infinity CentralStation are identified on the waveform by a yellow tick mark. Appended data is marked with a white tick mark, which represents the time the data was appended.

Event Disclosure Review Screen

When you open the **Review-Event Disclosure** screen, the most recent event information displays along with its associated waveform (if the waveform is being stored).



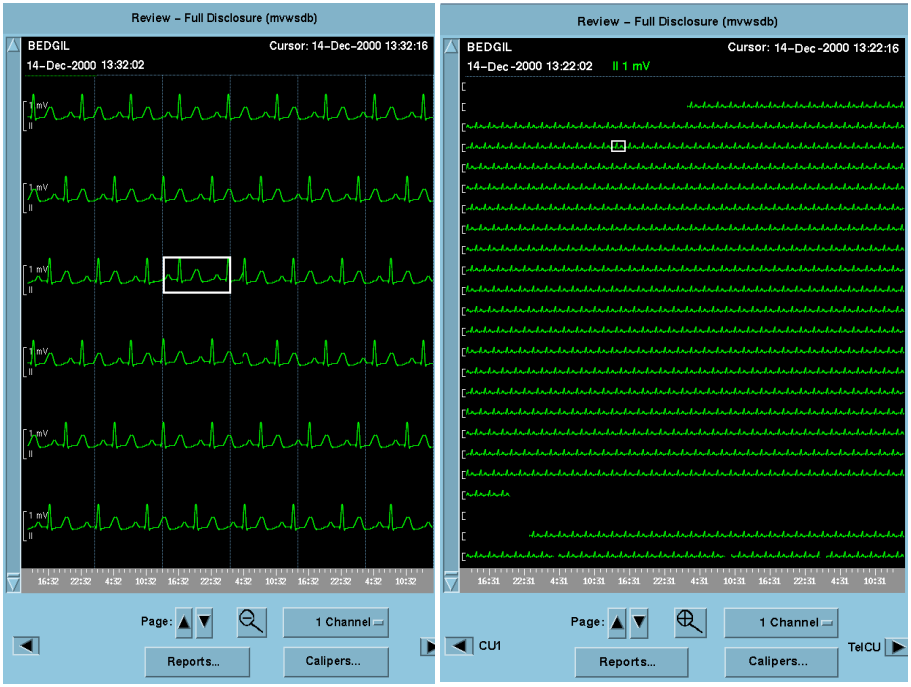
1	Patient Identification	**6**	Event class
2	Time/date corresponding to cursor position	**7**	Deletes event classes
3	Click symbol so a check mark displays to select an event for the shift report. When an event is annotated, the comment displays.	**8**	Opens Reports submenu
4	*Time line* with tick marks for all stored events Prominent tick mark identifies displayed event	**9**	Permits reclassification of event
5	Displays parameter values at time of the event (16-16)	**10**	To set up event classes see (16-17). Scrolls to next/previous event on *time line*
		11	Cause, lead, time, and date of stored event

Full/Event Disclosure Review Screen Functions

You can view a patient's Disclosure data (Full or Event) in **Zoom Out** (compressed) or **Zoom In** (expanded) format.

Zoom In
For 1 channel approximately 36 seconds of data displays on a page.

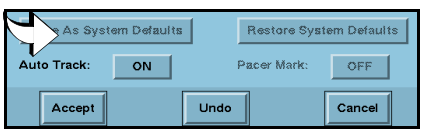
Zoom Out
For 1 channel approximately 9.5 minutes of data displays on a page.



Available functions on disclosure review screens are:

Full Disclosure	Event Disclosure
• navigate through and view stored Full/Event Disclosure data for multiple care units (16-8)	
• generate reports (14-22)	
• select how many channels of data you wish to view (16-8)	• view parameter values
• select gain settings (16-12)	• delete events (individual event or entire event class)
• choose the order of the displayed waveforms	• customize event storage
• select waveforms for storage (16-12)	• annotate events (16-14)
• access ECG caliper tool (16-19)	• reclassify events (16-17)
• configure trend order setup for Graphical Trend Report (14-24)	

Full/Event Disclosure Storage/Display Options

Function	Steps	Notes
Select waveforms for display	1.Click on **Options** on the **Disclosure Review screen** menu bar. 2.Click on **Display Options...** 3.Click on the channel's *Parameter* button. A list of available settings appears. 4.Click on the desired setting. 5.Repeat steps 3 and 4 for each channel.	Cursor time appears in white text on the **Patient Setup** screen.
Set display gain	1.Click on **Options** on the **Disclosure Review screen** menu bar. 2.Click on **Display Options...** 3.Click on the channel's *Gain/Scale* button. A popup of available settings appears (16-13). 4.Click on the desired setting. 5.Repeat steps 3 and 4 for each channel.	
Turn pacer mark ON/OFF	• Click on **Pacer Mark** toggle button on the bottom of the waveform selection screen. 	Pacer marks for bedside patients only display at the Infinity CentralStation if they are available at the bedside monitor.
Select waveforms for storage	1.Click on **Options** on the **Disclosure Review screen** menu bar. 2.Click on **Storage Options...** 3.Click on each channel's 'Parameter' button. 4.Click on the desired setting in the popup.	Channel defaults: 1 - Lead II 2 - Lead V 3 - ART 4 - SpO_2
Enable/Disable Automatic waveform tracking **NOTE:** When the Expanded Waveform locked option is installed, Autotracking is always **ON**. It cannot be disabled.	• Click on **Auto Track** toggle button near the bottom of the Waveform Storage screen. 	When **Auto Track:** is **ON**, the first four waveforms displayed at the bedside are stored automatically. When **Auto Track:** is **OFF**, you must manually select waveforms for storage.

WARNING! If you change leads at the bedside monitor and the Infinity CentralStation Auto Track is set to OFF, you must also change the lead selection at the Infinity CentralStation. The bedside waveforms may no longer correspond to the Infinity CentralStation waveform storage settings and data may be missing.

• Click on **Accept**, **Undo**, or **Cancel**.

Available Gain Settings

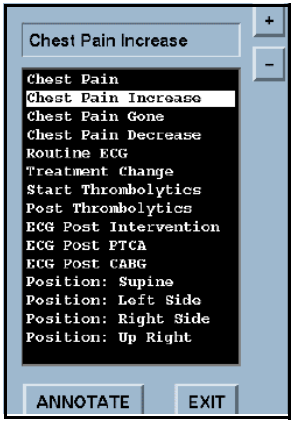
Parameter	Available settings	Default size
ECG	0.25, 0.5, 1, 2, 4, and 8 mV	1 mV
ART/IBP, LV, GP1, GP2, P1a-P3d	0 to: 20, 40, 50, 100, 125, 150, 175, 200, 225, 250, 300 mm Hg 0 to: 8, 12, 16, 20, 24, 32, 40 kPa	Adult 0 to 200 mm Hg/0 to 24 kPa Neonatal 0 to 100 mm Hg/0 - 16 kPa Pediatric 0 to 150 mm Hg/0 to 20 kPa)
PA, RV	0 to: 20, 40, 50 100, 125, 150 mm Hg 0 to: 4, 6, 8, 12, 16, 20 kPa	0 to 50 mm Hg/0 to 8 kPa
LA, RA, CVP	-5 to: 5, 15, 20, 25, 40, 50, 100, 150, 200, 250, 300 mm Hg -1 to: 2, 4, 5, 6, 8 kPa	-5 to 20 mm Hg/ -1 to 5 kPa
ICP	-30 to 30, 0 to: 20, 40, 50, 100, 150, 200, 250, 300 mm Hg -4 to 4, 0 to: 1, 2, 3, 4, 8, 16 kPa	0 to 20 mm Hg/0 - 4 kPa
SpO_2	10, 20, 30, 40, 50, 60, 70, 80, 90, 100%	40%
etCO2	0 to: 40, 60, 80 mm Hg 0 to: 5, 8, 12 kPa 0 to: 5, 8, 12%	0 to 40 mm Hg/0 to 5 kPa 0 to 5% 0 to 12%/0 to 12 kPa (MIB acquired)
Ventilator flow (MIB)	-5 to 5 L/min -10 to 10 L/min -20 to 20 L/min -50 to 50 L/min -100 to 100 L/min -200 to 200 L/min	Adult -100 to 100 L/min Neonatal -20 to 20 L/min Pediatric -50 to 50 L/min
Ventilator pressure (MIB)	-5 to 25 cmH2O -10 to 50 cmH2O -20 to 120 cmH2O	-5 to 25 cmH2O
Agent (MGM): Halothane, Isoflurane, Enflurane, Seflurane, Desflurane	0 - 1%, 0 - 2%, 0 - 3%, 0 - 5%, 0 - 10%, 0 - 20%	0 - 3%
O_2 (MGM)	20 - 50%, 20-100%	20 - 100%
Resp	5 - 100%	40%

Annotating Events

On the **Event Disclosure Review** Screen you can annotate clinically significant events. For example, you can add a remark to an event such as *Chest Pain Decrease* after administering medications. A maximum of 100 annotations can be stored per patient. If you attempt to store a comment once the maximum capacity has been reached, a popup appears alerting you that the storage capacity is full. If this happens, you must delete unnecessary comments to make room for new ones.

A list of frequently used terms is available to select from to annotate an event.

Annotating an event



1. Access the patient's Event Disclosure Review screen (16-7).
2. Scroll to the desired event either by clicking within the Event window or by using the ◀ **Next Event** ▶ button.
3. Click the right mouse button to activate the annotate popup list.
4. Either click on a term within the popup or type in a new comment (maximum of 25 characters).
5. Click on **Annotate** to add the comment to the event database or on **Exit** to leave the popup without storing an annotation.

After an annotation is assigned to an event, it appears at the top of the waveform of the Even Disclosure Review Screen.

Creating Your Own Annotations List

The annotations list contains a predefined set of terms that you cannot alter. However, you can add your own terms to the list (maximum capacity = 100 terms).

1. Open the patient's Event Disclosure Review screen (16-7).
2. Click on the right mouse button to activate the Notes popup.
3. Type in the note and click on the **+** button to *add* the entry to the top of the list; or highlight the list item to *delete* and press the **–** button.

NOTE: You cannot delete a predefined entry from the annotation list; you can only delete terms you have added manually.

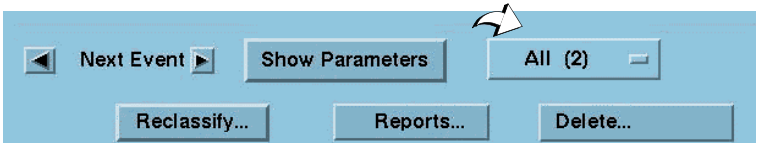
Viewing Events

To view and navigate through stored events:

- Click on the time line of the Event Review screen and click on the **◀ Next Event ▶** arrows.

Viewing a class of events

1. Click on the *event class* option button (see arrow) to display an event class list with the number of events for each.
   All is the default event class that displays when the screen opens and includes all stored events.



NOTE: Only event classes that have had an event in the last 28, 48 or 72 hours (depending on the configured option) are listed unless the disclosure record was locked.

2. Click on the desired event class.

Deleting Events

You can either delete individual events or entire event categories.

To delete an individual event

1. Open the **Event Review** screen (16-7).
2. Select the event you wish to delete.
3. Click on **Delete...**
4. Click on **Event** to delete the currently displayed event (the previous event is displayed; if no previous events exist, the *next* event is displayed instead).

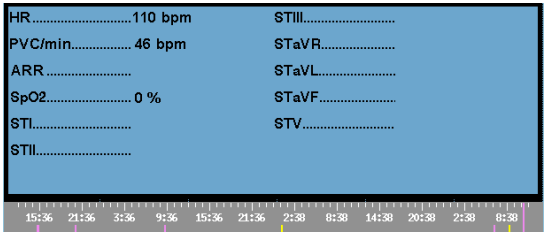
To delete an entire event class

1. Click on the *Event Class* button to display a list.
2. Click on the Event Class you wish to delete.
3. Click on **Delete...** to delete the entire Event Class. This activates a confirmation popup.
4. Click on **Yes** in the popup to delete all of the events for the selected class or on **No** to exit the popup without deleting any events.

Viewing Parameter Values

To see parameter values stored at the time of an event:

1. Open the **Event Review** screen (16-7).
2. Click on **Show Parameters**.

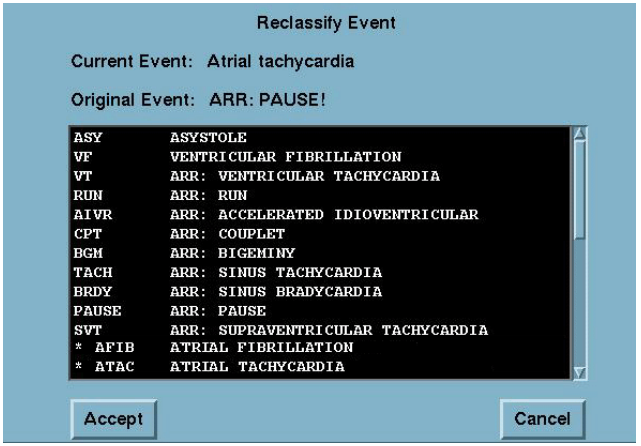


Arrow buttons may appear on either side of the parameter screen popup depending on the number of stored parameters for the events. Use these arrows to scroll through the list.

Renaming/Reclassifying Events

You can rename any stored arrhythmia event using labels from a pre configured selection menu as follows:

1. Open the **Event Review** screen (16-7) and select the event you wish to rename.
2. Click on **Reclassify**. The *Reclassify Event* popup displays.



The popup list includes all current Infinity arrhythmia class labels and ten additional labels with a preceding asterisk. These additional labels can either be the defaults or user-configured event names (18-5).

3. Select the desired event label and click on **Accept**.
   A confirmation popup displays which asks you to confirm that you want to reclassify the **Current Event** with your selection.
4. Click on **Continue** in the confirmation popup to accept the change or **Cancel** to keep the current label.

   The new label for the event displays on the Event Disclosure Review screen. If an event has a label that is user-configured, it is grouped in the event class, "other" (16-15).

   You can only reclassify events if they are in one of the following arrhythmia categories. Otherwise, the **Reclassify** button is ghosted on the Event Review Screen.

ASY	VF	VT	RUN
AIVR	CPT	BGM	TACH
BRDY	PAUSE	SVT	OTHER

Disclosure Review Screen Cursor

When you open a Disclosure Review screen data is centered around the cursor time, which appears at the top right of the screen.

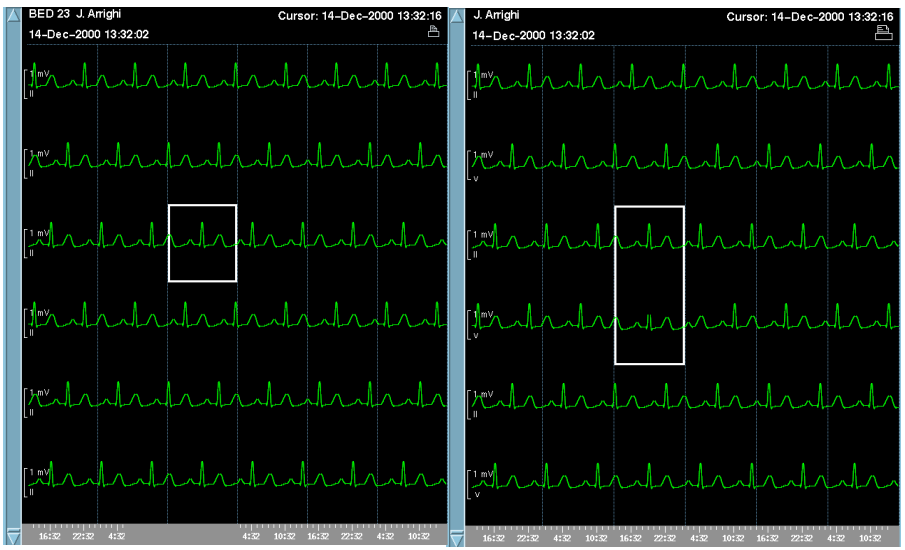
Changing the Cursor Time

Left-click the mouse anywhere on the displayed waveforms to change cursor time.

> **NOTE:** Cursor time does not change when you scroll through the data or select a time on the time line.

The cursor height varies with the number of channels selected.

1 Channel cursor **2 Channel cursor**



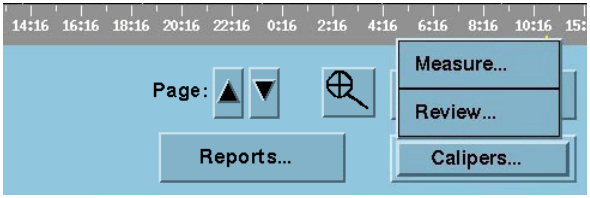
Full Disclosure ECG Caliper Tool

An on-screen ECG caliper tool allows you to obtain, calculate, store, and review time-based interval measurements and averages using Full Disclosure.

Before you can use the ECG caliper tool the Full Disclosure **Channel 1** setting must be set to display ECG data (16-12).

Accessing The ECG Caliper Screens

1. Open the **Full Disclosure Review** screen (16-7).
2. Position cursor over the ECG area you wish to measure.
3. Click on **Calipers...**
   A submenu displays.



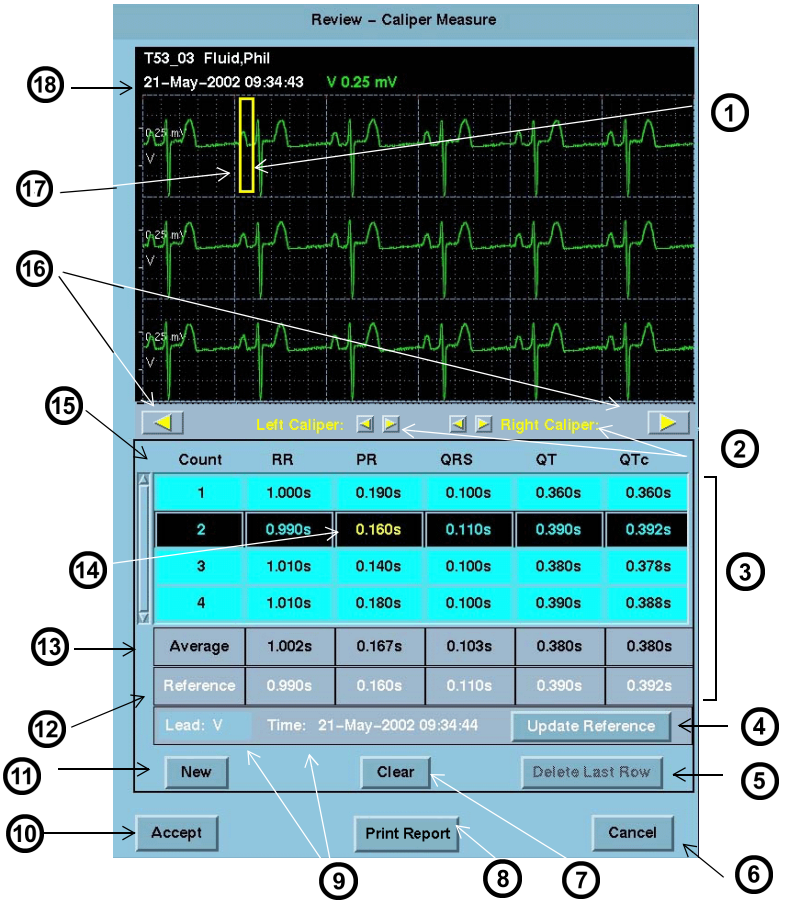
4. Click on the desired function.

Measure Executes **Caliper Measure** screen which uses 18 seconds of complete Full Disclosure ECG data following cursor time.

Review Executes **Caliper Review** screen.

NOTE: The **Review** button is ghosted when no measurements are stored for the patient.

Caliper Measure Screen



1	Waveform area - Right click mouse to move right caliper to any position on Waveform.	**10**	Accepts/Saves measurements, calculations, and averages
2	Caliper positioning adjustment controls	**11**	Generates new row of caliper measurements
3	Summary Table	**12**	Reference values (white text)
4	Updates reference	**13**	Interval averages
5	Deletes last row of measurements	**14**	Current measurement (yellow text)
6	Cancels measurements	**15**	Interval measurements and QTc
7	Resets selected row's measurements to zero	**16**	***Interval Advance Arrows*** rotate or "*march*" calipers to the next common interval in the strip. In order for the calipers to march, you must measure the first RR interval in the strip.
8	Generates an immediate printed report of current measurements (14-18)	**17**	Left click mouse to move left caliper to any position on waveform.
9	Last saved reference lead, date, and time	**18**	Cursor date and time

Waveform Area

Cursor time marks the first second of an 18-second ECG strip that displays at the top of the **Caliper Measure** screen. If less than 18 seconds of data follows the cursor in the FD review screen, the last full 18 seconds of data will display.

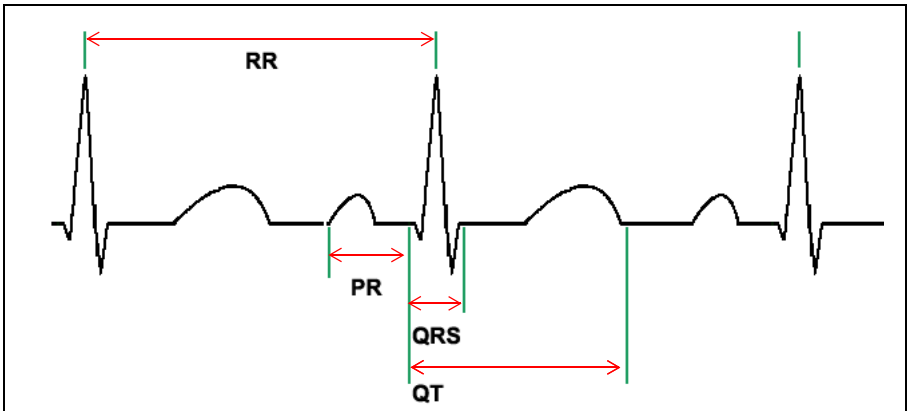
Initially the calipers appear at the beginning of the waveform but can be set by clicking the mouse buttons.

Summary Table

The summary table of the **Caliper Measure** screen displays interval measurements taken (16-21), calculated averages, and saved reference information (16-23).

It includes up to ten **Count** rows that contain RR, PR, QRS, and QT interval measurement entries, and calculates QTc for each corresponding RR and QT entry.

Interval Measurement Calculation



RR avg	Sum of RR intervals/quantity of samples
PR avg	Sum of PR intervals/quantity of samples
QRS avg	Sum of QRS intervals/quantity of samples
QT avg	Sum of QT intervals/quantity of samples
QTc	QT/square root of RR
QTc avg	Sum of QTc values/quantity of samples

Taking Interval Measurements

When the **Caliper Measure** screen first opens there is one highlighted row of measurements with zero values. As soon as one row of measurements is taken, these

values display as **Average** measurements. All rows, except those containing no measurements, are used to calculate averages.

To measure an interval:

Your first measurement must be the RR interval in order to determine the QT interval. After you measure the first RR interval, measure the PR, QRS and QT intervals.

1. Move the cursor to the RR interval measurement box and click. The active measurement displays in yellow text.

2. Position the cursors over a complex in the ECG strip.
3. Right-click the mouse button to set the right caliper.
4. Left-click the mouse button to set the left caliper.

NOTE: It is not possible to set *negative* measurement values.

5. Move the cursor to the next interval measurement box and click.
6. Repeat steps 2 through 5 for each desired measurement interval of that complex.

   Once you measure an RR interval between complexes, you can use the ***Interval Advance Arrows*** (16-20) to *march* or rotate the cursors the distance of the RR interval along the strip.

After all your measurements are complete you can save the data for review or future report generation or you can print an ECG Caliper Report immediately.

- To save the measurements click on **ACCEPT**.
- To print an ECG Caliper report immediately click on **Print Report**.

If you **Cancel** the **Caliper Measurement** screen without saving data, a popup displays. To save measurements not previously stored, click on **Yes** in the popup.

Adding/Removing/Changing Measurement Rows

The **Caliper Measure** screen *Summary Table* holds up to ten rows of interval measurements that are used to determine averages.

To add a row of interval measurements:

1. Click on **New**. A row of interval measurements with zero values is added and is highlighted.
2. Complete interval measurements for the complex (16-21).
3. Repeat steps 1 and 2 for each new row. You can have up to ten **Count** rows.

To remove last row of interval measurements:

The **Delete Last Row** button is ghosted until more than one row of measurements exists and the last row of measurements is highlighted.

1. Click on any interval measurement in the last measurement row to select and highlight the row.
2. Click on **Delete Last Row** to remove the row from the summary table.

To reset a row of interval measurements:

1. Click on any interval measurement in a row to select and highlight the row.
2. Click on **Clear** to reset all measurements to zero.

Saving References

At the bottom of the summary table saved reference measurements appear in the row labeled **Reference** and display in white text. **Reference Time:** shows the last saved reference date and time.

Reference measurements are displayed and stored with all associated caliper interval measurements until a new reference is selected.

To save a reference:

1. Click on any interval measurement in a row to select and highlight the row.
2. Select **Update Reference** to save these reference measurements.

   When you save a new reference and reference values already exist, a popup displays requesting confirmation.
3. Select **YES** in the popup to update the reference.

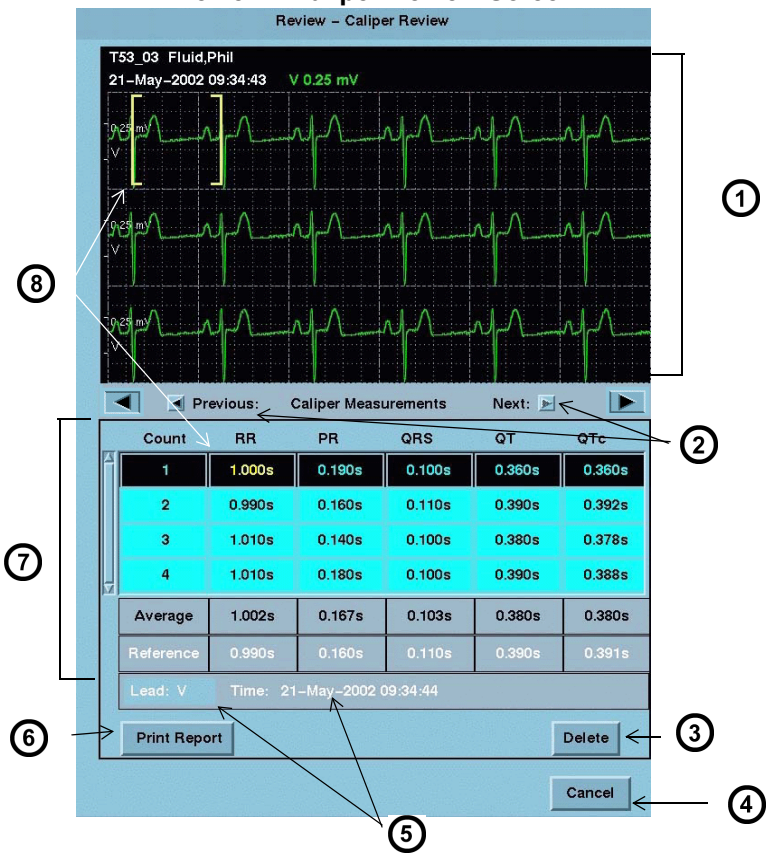
Caliper Review Screen

The **Caliper Review** screen lists all saved caliper measurements in its summary table. It can contain up to 72 hours of saved measurements.

From the **Caliper Review** screen you can:

- Delete saved measurements
- Generate a Caliper Report (14-18)

Review - Caliper Review Screen



1	Waveform Area	**5**	Last saved reference lead, date, and time
2	Scroll through saved measurements. (Arrows are ghosted at beginning and end of stored data.)	**6**	Generates Caliper Report (14-18)
3	Deletes saved measurements	**7**	Summary Table
4	Exit screen	**8**	Calipers display selected measurement (yellow text)

When the **Caliper Review** screen opens the latest saved interval measurements, averages, and associated references display along with the ECG waveform. Whenever you click on an interval measurement in the summary table, the calipers display the measured interval on the actual complex in the waveform area.

To open the **Caliper Review** screen see 16-19.

To delete interval measurements:

1. Open the **Caliper Review** Screen.
2. Click on **Delete**.
   A popup displays. To remove ***all*** of the measurements in the summary table, click on **Yes** in the popup.

Full/Event Disclosure Reports

Reports that are generated at the **Full/Event Disclosure Review** screen follow.

Full Disclosure	Event Disclosure
• Strip Report	
• Shift Report	
• Graphical Trend Report	
• Selected Events Report	
• One-Hour Report	
• 24-Hour Report	
• Selected Strip Report	
• Patient Status Report	
• Caliper Report	

Full/Event Disclosure report requests are printed to the laser printer even if you exit the screen.

Exporting Full/Event Disclosure Data

Exporting Full Disclosure Data to a Third-Party Device

When exporting data, a minimum of a patient ID must be entered in the ADT screen.

To Export Waveforms from Full Disclosure:

The **Export Waveforms** feature exports up to 25 hours of four continuous waveforms to a compatible third party device (contact your local Dräger representative for a list of compatible third party devices).

1. Open the patient's **Full Disclosure** Screen (16-7).
2. Click on **Reports...**
   A popup menu displays.
3. Click on **Export Waveforms.**

NOTE:

- If the **Export Waveforms** selection is not listed, the destination IP address is not configured for the device. Consult the Hospital Biomedical Engineering Dept.
- The waveform export feature supports transfer of one file at a time, during which the **Export Waveforms** selection is ghosted.

To Export Full Disclosure Data:

The **Export Strip** feature exports up to 4 waveforms each containing 18 seconds of data in which the cursor time marks the center of the exported waveform segment.

1. Open the patient's **Full Disclosure** Review Screen (16-7).
2. Click on the cursor to set the *end time* of the data to be exported.
3. Click on **Reports.**
   A popup menu displays.
4. Click on **Export Strip**.

NOTE: If the **Export Strip** selection does not appear, the Infinity MegaCare IP address is not configured. Consult the Hospital Biomedical Engineering Dept.

Exporting Events from Event Disclosure

The *Export Event* feature exports 18 seconds of the selected event's waveform data in which the event is the middle of the waveform segment, the event's cause string (e.g. ASY), and the parameter values at the time of the event.

To Export Event Disclosure Data:

1. Open the patient's **Event Disclosure**. Review screen (16-7).
2. Access the desired event
3. Click on **Reports...**
   A popup menu displays.
4. Click on **Export Event**.

NOTE: If the **Export Event** button does not appear, the Infinity MegaCare IP address is not configured. Consult the Hospital Biomedical Engineering Dept.

Special Conditions

Various situations during patient monitoring may affect Full/Event Disclosure data collection.

Special Condition	Effect
The monitoring device is being powered up.	• Full Disclosure data storage resumes accordingly. • No Events are stored until the monitor is operational.
The monitoring device is powered down.	The Full/Event Disclosure data is stored.
CPS/IDS is offline, has failed, or is powered down.	• Blank spaces appear in the Full Disclosure data for the duration of the interruption. • No events are stored during the interruption.
The patient monitor is put in *Standby* mode.	• Blank spaces appear in the Full Disclosure data for the mode duration. • No events are stored for the mode duration.
Standby is canceled.	Storage of Full/Event Disclosure data resumes.
The patient is discharged at the bedside.	Full/Event Disclosure data remains until manually deleted at the Infinity CentralStation.
The patient demographics are changed.	Full/Event Disclosure data is stored under the edited demographics.
The bedside monitor is disconnected.	• The Full Disclosure database shows blanks for the duration of the interruption. A message describes the absence of data. • No events are stored while the monitor is disconnected.
The pod/cartridge or a signal source such as a transducer is connected.	Full Disclosure data collection begins for any displayed parameter that was selected for the Full Disclosure application.
The pod/cartridge or a signal source is disconnected.	Blanks will appear in the Full Disclosure display of the parameter for the duration of the interruption.
Network date and/or time changes.	Up to 20 system time changes are stored. The time stamps on the waveforms and event calls mark the time the data was actually stored.
The patient leads are changed at the bedside monitor while Full/Event Disclosure automatic waveform tracking is **OFF**.	Data may be missing since the leads selected for display on the bedside monitor may no longer correspond to the Infinity CentralStation storage settings.

17 VentCentral Option

Overview

With the VentCentral option you can review a patient's ventilator information at the Infinity CentralStation.

NOTE:

- Certain parameters, identified as measured values, are derived from other values or settings provided by the ventilator and may not reflect actual values. See the operating instructions for your specific device for detailed information on derived measurements.
- The VentCentral option supports only modular monitors with VF and later software. If VentCentral is intended for use with an MIB device, the MIB must also have VF (or later) software.

The displayed parameters and settings may originate from bedside monitor-connected devices, such as:

NOTE: You cannot change any MIB-connected device settings from the Infinity CentralStation.

- Medical Information Bus (MIB)-connected Ventilators and anesthesia machines (See tables starting on page 17-19.)
- Infinity hemodynamic bedside monitors (parameters only)
- etCO2/Respiratory Mechanics Pod directly connected to a bedside monitor (parameters only)

You may interact with the VentCentral option via three Ventilator screens:

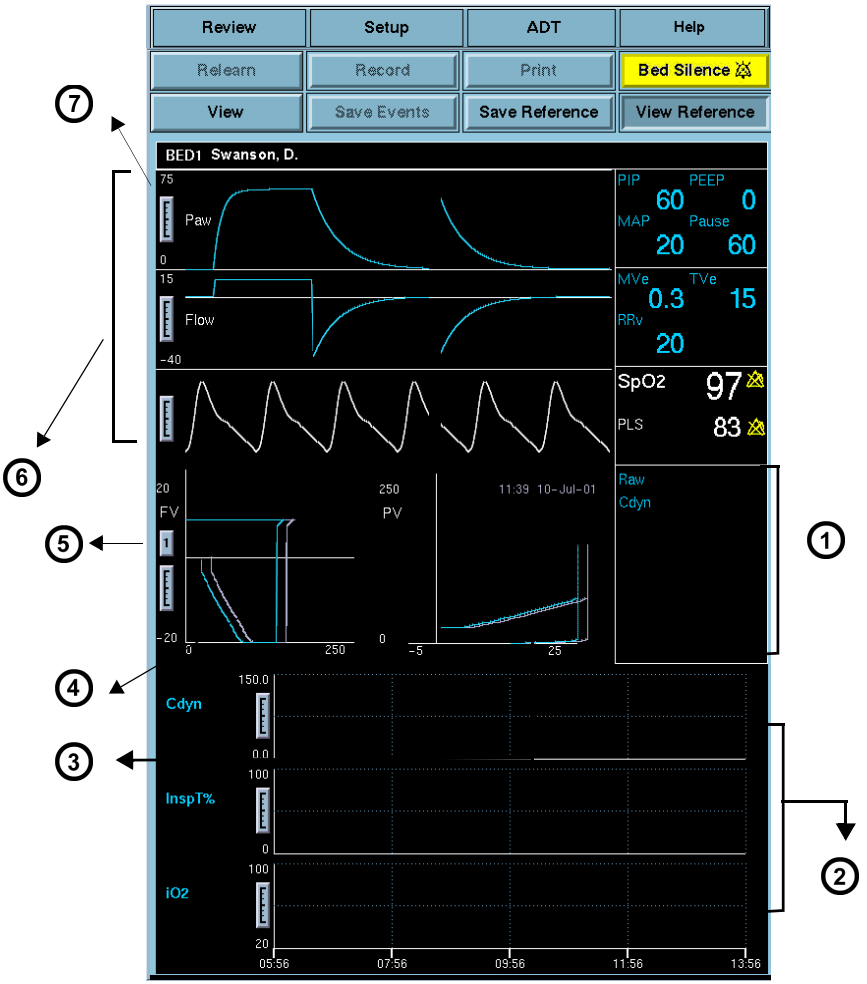
- *Ventilator screen*
- *Ventilator Settings Review screen*
- *Ventilator Setup screen*

WARNING! Ventilator data should be used for informational purposes only. Refer to the primary monitoring device before making therapeutic or diagnostic decisions. Always verify alarm condition at the actual device.

Dräger has tested/validated the following supported MIB devices and software versions, and cannot make any claim for the reliability of data for other software versions.

Device	Software Version
Dräger Babylog Ventilator	5.00
Dräger Evita 1 Ventilator	Tested to published protocol Medibus Intensive Care 3.00/4.00
Dräger Evita 2 Ventilator	2.00
Dräger Evita 4 Ventilator	3.21
Dräger Evita XL ventilator	5.00
Dräger Savina ventilator	2.10
Hamilton Galileo Ventilator	GMP02.11a
Maquet SV 900 Ventilator	not applicable
Maquet SV 300/300A Ventilator	2.00
Maquet Servo*i* Ventilator	1.00
P - B 7200 Ventilator	SP1/PM Revision .005
P - B 840 Ventilator	4-070212-85-D
Taema Horus Ventilator	3.055/mdv -1.170
Dräger Cato Anesthesia System	Tested to published protocol Medibus anesthesia devices 3.00/4.00
Dräger Julian Anesthesia System	
Dräger Cicero Anesthesia System (B, C, EM)	
Dräger Julian Primus Anesthesia System	
Dräger Primus Anesthesia System	Tested to published protocol Medibus for Primus, Software 1.n, 2.n
Dräger Fabius GS Anesthesia System	Tested to published protocol Medibus anesthesia devices 4.00
Dräger Tiro	
Dräger Fabius CE	Tested to published protocol Medibus anesthesia devices 4.03
Dräger Apollo Anesthesia Workstation	
Dräger Zeus® Anesthesia System	3.n
Dräger Narkomed IIC	1.30
Dräger Narkomed IV	2.01
Dräger Narkomed 6000/6400	4.01
Ohmeda 7900 / Modulus CD anesthesia machine	2.8
etCO2/respiratory mechanics pod	VF0 (and later versions)
Viasys Bear 1000® Adult Ventilator	2020
Viasys BearCub® 750 Infant Ventilator	Tested to Viasys RS-232 communication protocol ER 11, revision E
Edwards/Baxter Vigilance/Vigilance II SvO_2/CCO monitor	4.42, 5.02

The Ventilator Screen



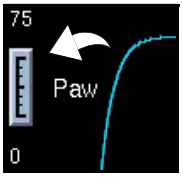
1	Parameter box with fixed set of parameters If a parameter is not available, the area is blank.	**5**	Select “1” for single loop and “4” for multi-loop display. During multi-loop configuration, four successive loops (of different shades) show. All loops erase and the sequence restarts after the fourth loop is complete.
2	8-hour trend of user-selected parameters	**6**	Display of 3 waveform channels
3	Pressure vs. Volume Loop	**7**	Waveform adjustment scale
4	Flow vs. Volume Loop		

Accessing the Ventilator Screen

1. Click on the patient's Main Screen parameter box. For information on accessing a remote patient, refer to page 8-3**.**
2. Click on **View**.
3. Click on **Ventilator**.

Scaling

If the VentCentral waveforms, loops, or trends appear clipped, you can change the display size by clicking on the scale at the left edge of the waveform area or to the left of the trends.

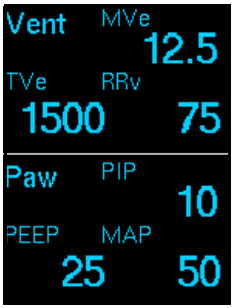


Waveform Area in Ventilator Screen

The Ventilator screen allows you to select up to three waveforms for display and prioritize their order (page 17-12). If a waveform is not available from the bedside or the MIB-connected device, the next waveform in the priority list is used to fill the three waveform areas. If less than three waveforms are available, waveform areas are blank.

Parameter Box

The parameter boxes to the right of the waveform area may consist of MIB and/or Infinity parameters and cannot be changed. These parameter boxes are independent of the bedside monitor and do not flash when a parameter is in alarm. MIB parameters do not support units, limits, and/or alarm-off icons. For Infinity parameters a crossed bell icon appears next to the parameter label when the alarm function is turned off.

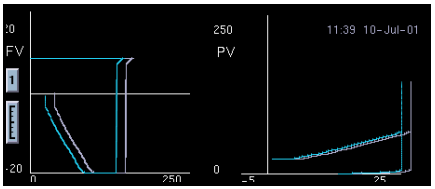


Loops Area in Ventilator Screen

The real-time ventilator loops in the Ventilator screen are synchronous with the associated breath. Flow Volume is shown on the left and Pressure Volume on the right. Loops are drawn with the same display scale as the associated waveforms.

Displaying Loops

You can save and display a **Reference Loop** with the actual loop display. The color of the reference loop is magenta. The Ventilator screen can display a **Single Loop** or **Multi-loop** draw.



Loop Parameter Box

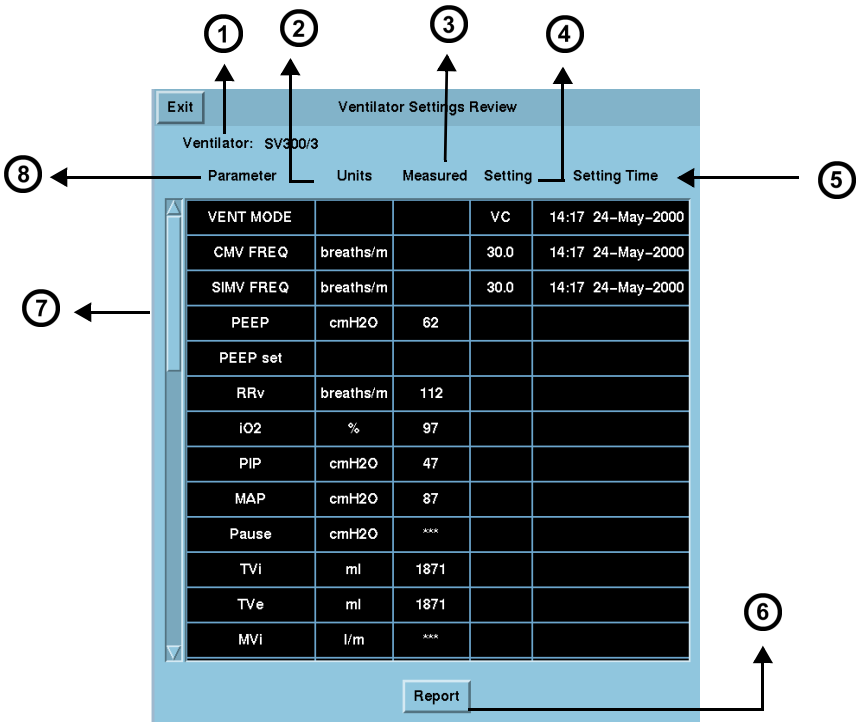
The parameter box next to the loop area contains dynamic compliance, dynamic resistance, and arterial blood gas values. If blood gas values are not available, the labels do not appear. The order and ranges of the parameters follow.

Parameter	Units	Measurement Range
pH	pH, nmol/L	6.6 - 7.8
HCO3	mEq/l, mmol/L	1-200 mEq/l
Hct (Hematocrit)	%	15-75%
tHb (Hemoglobin)	g/dl, g/100ml, g/L, mmol/L	5-25 g/dl
PCO2	mmHg (kPa)	10-200 mmHg (1.333 - 26.66 kPa)
PO2	mmHg (kPa)	10 - 700 mmHg (1.33 - 93.31 kPa)

Trend Area in Ventilator Screen

Three trend graphs on the **Ventilator** screen show the most recent 8 hours of trend data for user-selected parameters (page 17-13). If a selected parameter is not available from the bedside/MIB device, the next parameter from the **Trends Setup** screen is automatically displayed. If less than three parameters are available, the **Ventilator** screen parameter graph is blank.

The Ventilator Settings Review Screen



1	Ventilator type	**5**	Time and date the setting was modified
2	Selected units of measure at the MIB device or ventilator	**6**	Generates Ventilator report (Chapter 14)
3	Most recently updated measurement value Certain parameters, identified as measured values or settings, are derived from the values provided by the ventilator and may not reflect actual values.	**7**	Scroll bar for accessing additional parameters
4	Most recent setting of the ventilator/MIB device	**8**	Parameter or setting labels

Accessing the Ventilator Settings Review Screen

1. Click on the patient's parameter box.
2. Click on **Review**.
3. Click on **Ventilator Settings Review**.

Parameter and Settings Order

The **Ventilator Settings Review** screen displays settings and supported parameters sent by the connected MIB device, Infinity bedside monitor, or compatible bedside monitor pod.

NOTE: The Infinity CentralStation does not support Acoustic Evoked Potential (AEP) and Somatosensory Evoked Potential (SEP) functions that are enabled at a bedside monitor.

Each **Ventilator Settings Review** screen parameter and setting displays in a fixed order. If a setting or parameter is not available, the corresponding field on the **Ventilator Settings** screen is blank. Additional settings and parameters not assigned to the fixed order are at the end of data received from the MIB-connected device. Parameters/settings sent to Infinity monitors for various MIB-compliant devices are listed in tables starting on page 17-19.

Order	Description	Parameter	Setting
1	Ventilator type		✓
2	Ventilator mode		✓
3	CMV frequency		✓
4	SIMV frequency		✓
5	PEEP (End Expiratory Pressure)	✓	
6	PEEP		✓
7	RRv (measured respiration rate)	✓	
8	O_2 concentration	✓	
9	PIP (Peak Airway Pressure)	✓	
10	MAP (Mean Airway Pressure)	✓	
11	Pause Airway Pressure	✓	
12	End Expiratory Flow	✓	
13	Tvi (Tidal Volume inspired)	✓	
14	TVe (Tidal volume expired)	✓	
15	Tve s (Tidal Volume Expired spontaneous)	✓	
16	Minute Volume inspired (MV i)	✓	
17	Minute Volume expired	✓	
18	Minute volume expired spontaneous (MVe s)	✓	
19	Dynamic compliance (Cdyn)	✓	
20	Dynamic resistance	✓	
21	I of I:E I-Part	✓	
22	E of I:E E-Part	✓	
23	end-tidal CO2 (etCO2)	✓	
24	CVP	✓	
25	SpO2	✓	

Order	Description	Parameter	Setting
26	iCO2	✓	
27	etCO2*	✓	
28	iCO2*	✓	
Blood Gas Parameters			
29	pH	✓	
30	HCO3	✓	
31	Hematocrit (Hct)	✓	
32	Hemoglobin (tHb)	✓	
33	PCO2	✓	
34	PO2	✓	
Other Parameters and settings			
35	Barometric pressure	✓	
36	Additional parameters from Ventilator/MIB devices (see tables starting on page 17-19)	✓	
37	Additional settings from Ventilator/MIB devices (see tables starting on page 17-19)		✓

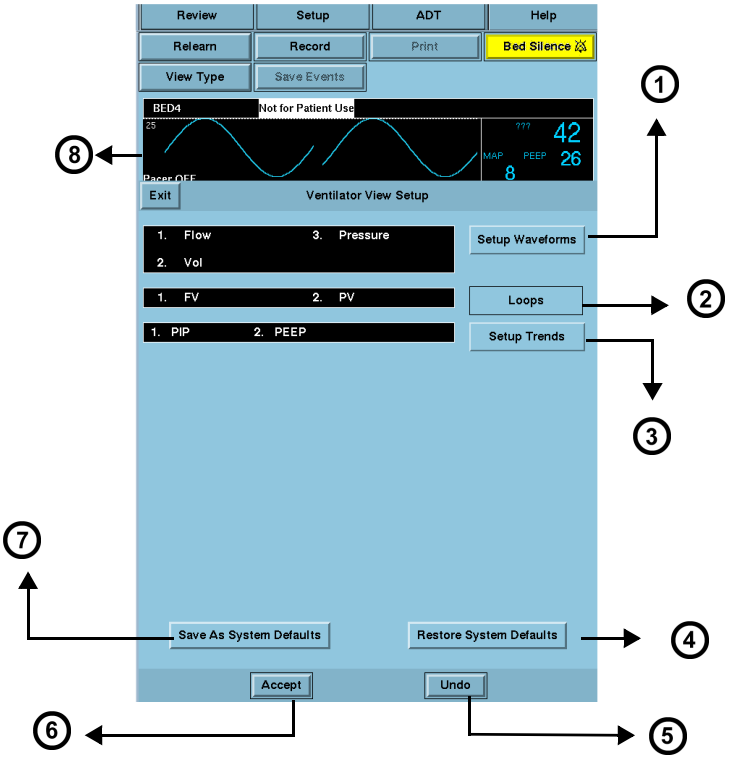
Special Conditions

Special Conditions Affecting Ventilator Settings Review Screen

Condition	Effect
Disconnected parameter hardware	The VentCentral application is not available and cannot be accessed for the respective patient.
Reset of MIB- device, bedside monitor, or Infinity CentralStation	The **Ventilator Settings** screen time stamp reflects the first setting following the reset.
Bedside monitor PICK AND GO	The **Ventilator Settings** screen time stamp reflects the monitor's reconnect to the network.
First connection of MIB-compliant ventilator, $etCO_2$/Respiratory Mechanics Pod, or Delta/Delta XL monitor	Time stamp reflects the first setting received after the device is connected.
Blood gas values stored for more than 30 minutes	Values are removed from the VentCentral screen.
Device sends more digits than the Ventilator Settings screen field can accommodate	Instead of the parameter values, overflow characters display.

Ventilator View Setup Screen

The **Ventilator View Setup** screen permits selecting an individualized display for a selected patient



1	Opens Waveforms Setup screen	**5**	Reverts to previous settings
2	Fixed - Always shows Flow vs. Volume and Pressure vs. Volume	**6**	Accepts new settings/changes
3	Opens Trends Setup screen	**7**	Saves current setup as system default for all patients
4	Restores system defaults	**8**	Top ventilation waveform

Accessing the Ventilator View Setup Screen

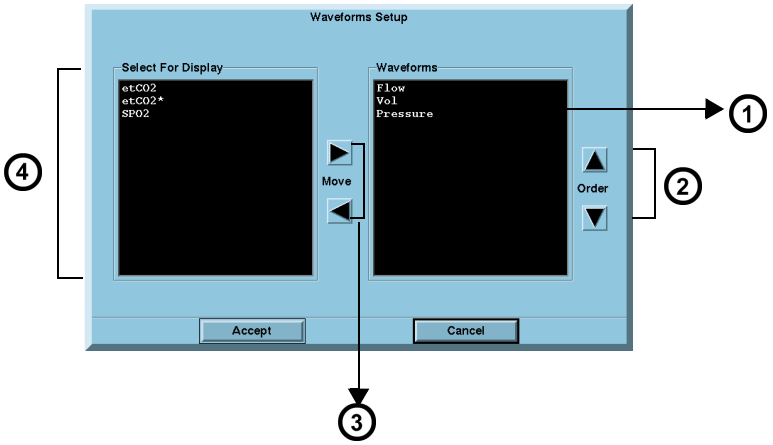
1. Click on the patient's Main Screen parameter box. To access a remote patient, see page 8-3**.**
2. Click on **Setup**.
3. Click on **Ventilator View Setup**.

Selecting Waveforms for Display

You can set up the display priority of ventilator parameters.

NOTE: If a selected waveform is not available from the bedside monitor, the next waveform is selected to fill available Infinity CentralStation waveform channels.

1. Open the **Ventilator View Setup** screen (page 17-12).
2. Click on **Setup Waveforms**. The **Waveforms Setup** popup displays.



1	Parameters selected for display	**3**	Arrows permit moving selected parameters from one window to the other
2	Arrows permit changing the priority order of selected waveforms	**4**	Available parameters

3. Select the desired display configuration.

   The left/right arrows move desired waveforms from the display window to the *Waveforms* window. The up/down arrows move parameters in a desired sort order.

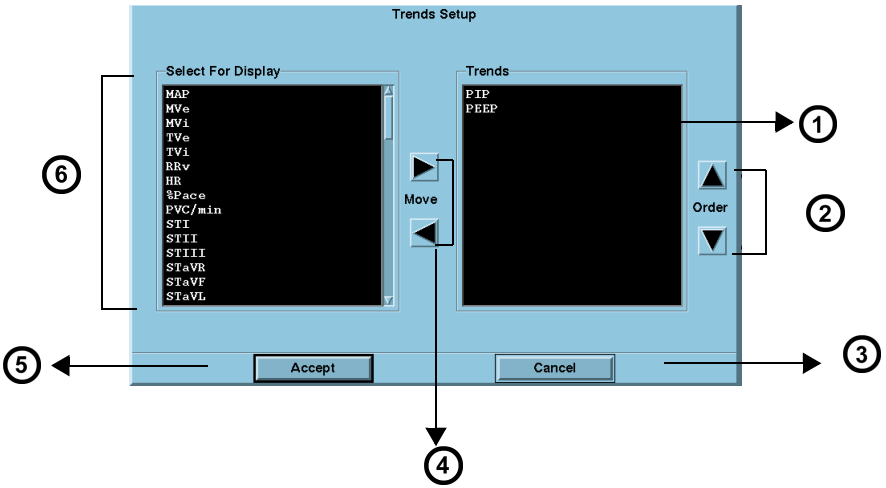
NOTE: You may select several parameters at once before you move them from one window to the other.

4. Click on **Accept** to save or **Cancel** to keep prior settings.
5. Click on **Save as System Defaults** in the **Ventilator View Setup** screen to retain this setup as the system default.

Selecting Waveforms for the Trend Display

To select and prioritize ventilator parameters for trend display:

1. Open the **Ventilator View Setup** screen (page 17-12).
2. Click on **Setup Trends**. The **Trends Order Setup** popup displays.



1	Trends selected for display	**4**	Arrows permit moving selected parameters from one window to the other
2	Arrows permit changing the priority order of selected trends	**5**	Accepts current setup
3	Cancels current setup	**6**	Available parameters for selection

3. Select the desired display configuration.

   The left/right arrows move the desired parameters from the display window to the *Trend* window. The up/down arrows move parameters in a desired sort order.

NOTE: You can select several parameters at once to move them from one window to the other.

4. Click on **Accept** to save or **Cancel** to keep prior settings.
5. Click on **Save as System Defaults** in the **Ventilator View Setup** screen to keep this setup as the system default.

VentCentral Trend Parameters

Parameter Label	Definition
Heart Rate	
HR	ECG measurement
Ventilation	
AW-Temp	Airway temperature
Cdyn	Dynamic compliance
C20/Cdyn	Dynamic compliance over last 20% of breath.
etCO2	End-tidal carbon dioxide
InspT%	I:E ratio (inspiratory component)%
ICO2	Inspired CO2 (etCO2)
iO2	Inspired oxygen
iPEEP	Peak end expiratory airway pressure, intrinsic
MAP	Mean airway pressure
Mve	Minute volume, expired
MV s%	Minute volume, spontaneous
MValv	Minute volume, alveolar, total
MVe	Expired minute volume
MVi	Inspired minute volume
PAP	Peak airway pressure
Pause	Pause pressure
PeCO2	Mixed expired carbon dioxide
PEEP	Peak end expiratory airway pressure
PEF	Peak expiratory flow

Parameter Label	Definition
Ventilation (Continued)	
PIF	Peak inspiratory flow
Raw	Dynamic resistance
Raw e	Expired airway resistance
Raw i	Inspiratory dynamic resistance
RRv	Respiratory rate
RRs	Respiratory rate, spontaneous
RRm	Respiratory rate, mechanical
RSBI	Rapid shallow breathing index
Te	Expiratory time
Ti	Inspiratory time
TVe	Tidal volume, expired
TV Leak	Leakage, system
TValv m	Tidal volume, alveolar, mechanical
TValv s	Tidal volume, alveolar, spontaneous
Tva	Tidal volume, alveolar, total
TVd/TV aw	Dilution ratio, airway
TVCO2	CO2, tidal volume
TVe	Expired tidal volume
TVi	Inspired tidal volume
TVi m	Tidal volume, inspiratory, mechanical
TVi s	Tidal volume, inspiratory, spontaneous
TVd aw	Dead space, airway (Vds)
VCO2	CO2 production, minute volume
WOBimp	Work of Breath imposed
Pulse Oximetry	
SpO2/SPO2*	oxygen saturation
PLS/PLS*	Pulse rate
Δ SpO2	Delta SpO2
Respiration	
RR	Respiratory rate
RR	Respiratory rate (etCO2)
RV	Respiratory rate

Parameter Label	Definition
Temperatures	
T1, T2, T3	Temperature
T	Basic temperature
Pressures	
ART	Arterial pressure
CPP	Cerebral perfusion pressure
CVP	Central venous pressure
GP1	General pressure 1
GP2	General pressure 2
ICP	Intracranial pressure
LA	Left-atrial pressure
NIBP	Non-invasive blood pressure
P1	P1 pressure
P2	P2 pressure
PA	Pulmonary arterial pressure
PWP	Pulmonary Wedge Pressure
RA	Right arterial pressure
V	Ventricular pressure
Cardiac Output	
BT	Blood temperature
CCO	Continuous cardiac output
CCI	Continuous cardiac index
CCO	Continuous cardiac output
DO2	Oxygen delivery or availability
FiO2	Fraction of inspired O2
ICI	Intermittent cardiac output index
ICO	Intermittent cardiac output
PVR	Pulmonary vascular resistance
PVRI	Pulmonary vascular resistance index
SVR	Systemic vascular resistance
SVRI	Systemic vascular resistance index

Parameter Label	Definition
Cardio Respiration	
SaO2	Saturation of arterial oxygen
SvO2	Saturation of venous oxygen
VO2	Oxygen consumption
TCP/CO2	
TCO2	Transcutaneous carbon dioxide
ht pwr	Heater power
O2	Oxygen concentration
Anesthesia	
etCO2	End-tidal carbon dioxide
eO2	Expired O2
iCO2	Inspired CO2
FiO2	Fraction of inspired O2
RRc*	Respiration rate
SEV	Sevoflurane
iDES	Inspired desflurane
etDES	End-tidal desflurane
iENF	Inspired enflurane
etENF	End-tidal enflurane
iHAL	Inspired halothane
etHAL	End-tidal halothane
iISO	Inspired isoflurane
etISO	end-tidal isoflurane
iN2O	Inspired nitrous oxide
etN2O	End-tidal nitrous oxide
Lab data	
HCO3	Bicarbonate
hct	Hematocrit
tHb	Hemoglobin concentration
pCO2	Partial pressure CO2
pH	Blood pH
pO2	Partial pressure O2

MIB Ventilator Alarms

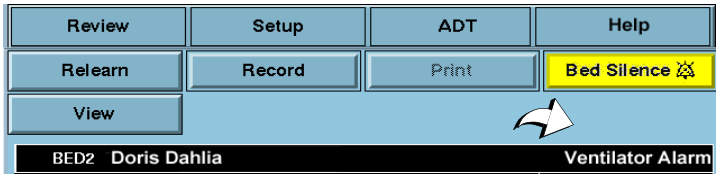
MIB-connected ventilators: Orange alarm messages appear in the lower right corner of the topmost Main Screen waveform channel and are available without the VentCentral option enabled.

WARNING!

- **Ventilation alarms function independently from the bedside monitor.**
- **The bedside monitor does not annunciate ventilation alarms.**
- **The connected ventilator allows no remote control.**

In the VentCentral screens alarm messages appear on the right side of the information area (see arrow).When an MIB-connected ventilator is active at the Infinity CentralStation and the signal is lost, the Infinity CentralStation sounds a one-shot alarm and displays the message, *MIB Disconnected*

NOTE: MIB alarm messages will be sent to and displayed at the Infinity CentralStation when you put a patient's bedside monitor in *standby* mode.



Parameter boxes in the VentCentral screens that originate at MIB-connected ventilators do not flash when they are in alarm.

Alarm messages that originate at MIB-connected ventilators are displayed for as long as the ventilator sends them. If multiple alarm conditions occur simultaneously, the messages rotate.

Alarms that originate from the $etCO_2$/Respiratory Mechanics Pod can be silenced remotely when the corresponding remote silence function is enabled.

Ventilator Report

For detailed information on ventilator reports and how to request them, see page 14-19.

VentCentral Messages

Message	Description	Action
Trend data not available	When you admit a new patient to Main Screen, it takes a moment for the trend data to be compiled. Within 1 minute the database will contain trend data.	Exit and re-enter the trend application.
No trend parameters selected	Trend parameters have not been selected.	Select trend parameters (page 17-13).
Serious Alarm at <%s>	There is an MIB alarm at the corresponding bed.	Check the patient.
MIB Disconnected	MIB cable is disconnected	Re-connect MIB cable

Ventilator and Device Messages/Labels

Tables on the following pages list messages, labels, and settings sent by various MIB-connected devices to the Infinity bedside monitors for display at the Infinity CentralStation.

Please refer to the table on page 17-9 for information about display of these data on the **Ventilator Settings Review** screen and the Ventilator report.

CAUTION! *The following tables list possible labels and messages for identification purposes. For complete information about message interpretation and device operation, please refer to the equipment documentation.*

Dräger Cato Anesthesia System

NOTE: The Dräger Cato Anesthesia System is not commercially available in the U.S. and its future availability cannot be ensured.

Parameter Label	Description	Displayed in...
e[HAL, ISO, ENF, SEV, DES]	Expired agent	Ventilator screen (page 17-6)
i[HAL, ISO, ENF, SEV, DES]	Inspired agent	
eCO2	Expired CO2	
iCO2	Inspired CO2	
eO2	Expired O2	
iN2O	Inspired N2O	
iO2	Inspired O2	
MAP	Mean Airway Pressure	
MVe	Expired Minute Volume	
Pause	Pause Pressure	
PIP	Peak Inspired Airway Pressure	
PEEP	Peak End Expiratory Airway Pressure	
RRc	Respiratory rate	
RRv	Respiratory rate	
TVe	Tidal volume, expired breath	

Dräger Cicero Anesthesia System

NOTE: The Dräger Cicero Anesthesia System is not commercially available in the U.S. and its future availability cannot be ensured.

Parameter Label	Description	Displayed in...
HAL, ISO, ENF, SEV, DES	Expired and inspired agent	Ventilator screen (page 17-6)
eO2	Expired O2	
iN2O	Inspired N2O	
iO2	Inspired O2	
MAP	Mean Airway Pressure	
MVe	Minute Volume, expired	
Pause	Pause Pressure	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory airway pressure	
RRc	Respiratory rate	
RRv	Respiratory rate	
TVe	Tidal volume, expired breath	
Selected Settings		
HAL, ISO, ENF, SEV, DES	Tidal volume, expired breath	Ventilator Settings screen (page 17-8)
eO2	Tidal volume, inspired breath	

Dräger Julian/Julian Primus/Primus Anesthesia System

NOTE: The Dräger Julian Primus and Dräger Primus Anesthesia Systems are not commercially available in the U.S. and their future availability cannot be ensured.

Parameter Label	Description	Displayed in...
[HAL, ISO, ENF, SEV, DES]	Expired and inspired agent	Ventilator Settings screen (page 17-8)
ECO2[3] or etCO2	Expired CO2	
etCO2	End Tidal CO2	
eN2O	Expired N2O	
eO2 or etO2	Expired O2	
iN2O	Inspired N2O	
iCO2[1]	Inspired CO2	
iO2	Inspired O2	
MAP	Mean Airway Pressure	
MVe	Minute Volume, expired	
Pause	Pause Pressure	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory airway pressure	
RRc	Respiratory rate (CO2)	
RRv	Respiratory rate (Volume/flow/pressure/ derived)	
TVe	Tidal volume, expired breath	
Cdyn[1]	Compliance	
Baro Prsr[1]	Barometric Pressure	
Leakage[1]	Leakage	
iMAC[1]	Inspired MAC (minimum alveolar concentration)	
eMAC[1]	Expired MAC	
APNEAt[1]	Apnea Duration	
Delta O2[1]	(iO2 - eO2)	
Selected Settings		
iO2 set	iO2 setting	Ventilator Settings screen (page 17-8)
TVi set[1]	Tidal volume, inspired breath	
Ti set[1]	Inspiratory Time	
IPPV FREQ[1]	frequency	
INT PEEP set[1]	Intermittent PEEP	
P Support[1]	Support Pressure	
PIP set[1]	Maximum Inspired Airway Pressure	
FLOW trig set[1]	Flow Trigger	
F Gas Flow	Fresh Gas Flow	

Alarm Messages		
Message	**Description**	**Displayed in...**
APNEA	Apnea	Main Screen-lower right hand corner of the top waveform channel Bed View-information area, right below menu buttons Alarm causes that are labelled as '*Ventilator Alarm*' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
Paw > HI LIM	Airway pressure > high limit	
Ventilator Alarm	• Inspired Agent > High Limit[1] • Expired Agent > High Limit[1] • Mean Airway Pressure < -2 mbar • Problems with Ventilator[1] • Internal Temperature High[1] • Gas Supply Alarm[1] • Ventilator Communication lost[1] • Fresh Gas delivery failure[1] • O2 Cylinder empty without wall supply[1] • O2 Cylinder not connected[1] • N2O Cylinder empty[1] • N2O delivery failure[1] • O2 delivery failure[1] • Air delivery failure[1] • Internal/external switch over valve error[1] • Circle Occluded[1] • Ventilator not in locked position[1]	
O2 SUPPLY?	O2 Supply Pressure Low	
iO2 < LO LIM	Inspiratory O2 < low limit	
Patient Disconnect[1]	Breathing System Disconnected	
AW-TEMP>HI LIM[1]	Airway temperature > high limit	
N20 Fail[1]	N20 delivery failure	
Air Fail[1]	Air delivery failure	
Fresh Gas Fail[1]	Fresh gas failure	
O2 Fail[1]	O2 delivery failure	
No Fresh Gas[1]	No fresh gas	
Waveforms[1]		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
CO2	Only 2 waveforms can display. If CO2 is available, Paw displays with it. Flow is only available if CO2 is not.	
Loops		

Mode Display	
Mode at Device	**Mode at Infinity CentralStation**
IPPV	IPPV[2]
SIMV	SIMV
PCV	PC
VCV	VC
Standby	Standby
PSV	PS
Man/Spont	Man/Spont
Fresh Gas external	Fresh Gas EXT
Pressure Support added to Volume Control	VC+PS
Pressure Support added to Pressure Control	PC+PS

[1]Applicable only to **Dräger Primus**
[2]In some languages IPPV is used for CMV or VC
[3]Applicable only to **Dräger Julian**

Dräger Narkomed IIC / IV / 6000 / 6400 Anesthesia System

Parameter Label	Description	Displayed in...
i[HAL, ISO, ENF, SEV, DES]	Inspired agent	Ventilator Settings screen (page 17-8)
e[HAL, ISO, ENF, SEV, DES]	Expired agent	
etCO2	Expired CO2	
iCO2	Inspired CO2	
eO2 or etO2	Expired O2	
iO2	Inspired O2	
iN2O	Inspired N2O	
etN2O	Expired N2O (6000 and 6400 only)	
MAP	Mean Airway Pressure	
MVe	Minute Volume, expired	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory airway pressure	
RRc	Respiratory rate	
RRv	Respiratory rate	
TVe	Tidal volume, expired breath	
Selected Settings (IIC and IV only)		
iO2 set	iO2 setting	Ventilator Settings screen (page 17-8)
Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Alarms		
APNEA	Apnea	Main Screen-lower right hand corner of the top waveform channel Bed View-information area, right below menu buttons Alarm causes that are labelled as '*Ventilator Alarm*' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
Paw > HI LIM	Airway pressure > high limit	
iO2 > HI LIM	Inspired O2 > high limit	
Ventilator Alarm	• Agent > High Limit • Ventilator failure • Ventilator Communication lost • Mean Airway Pressure < -2 mbar • CO2 device error • Check expiration valve	
O2 SUPPLY?	O2 Supply Pressure Low	
No Fresh Gas	No fresh gas	
Low Battery	Low battery	
PEEP > HI LIM	PEEP exceeds high limit	
MVe < LO LIM	MVe below lower alarm limit	
etCO2< LO LIM	etCO2 below lower limit	
etCO2>HI LIM	etCO2 exceeds upper limit	

Dräger Fabius GS/Fabius CE/Tiro Anesthesia System

NOTE: The Dräger Fabius CE Anesthesia System is not commercially available in the U.S. and its future availability cannot be ensured.

Parameter	Description	Displayed in...
Pause	Plateau Pressure	Ventilator Settings screen (page 17-8)
iO2	Inspired O2	
MAP	Mean Airway Pressure	
MVe	Minute Volume, expired	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory airway pressure	
RRv	Respiratory rate	
TVe	Tidal volume, expired breath	
Air Flow[4]	Air flow (Fabius GS only)	
N2O Flow[4]	Nitrous oxide flow	
O2 Flow[4]	Oxygen flow	
Setting	**Description**	**Displayed in...**
TVi set	Inspired Tidal Volume setting	Ventilator Settings screen (page 17-8)
I:E I part	I:E ratio - inspiratory component	
I:E E part	I:E ratio - expiratory component	
IPPV FREQ	IPPV frequency setting	
INT PEEP set	Intermittent PEEP setting	
PIP set	PIP setting	
FLOW Trig set [1]	Flow trigger Level setting	
i FLOW set[1]	Inspiratory flow setting	
P Support[1]	Support pressure	

Alarm Messages	Description	Displayed in...
APNEA	Apnea	Main Screen-lower right hand corner of the top waveform channel Bed View-information area, right below menu buttons Alarm causes that are labelled as '*Ventilator Alarm*' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
Paw > HI LIM	Airway pressure > high limit	
Ventilator Alarm	• Mean Airway Pressure < -2 mbar • PEEP > Pressure Threshold for 15 seconds • Problems with Respirator • No Fresh Gas • Check APL Valve • Pressure Measurement Inoperable[2] • Internal System Fault[2] • Power Supply Error[2] • Problems with Ventilator[2] • Loss of Data[2]	
O2 SUPPLY?	O2 Supply pressure low	
iO2 < LO LIM	Inspiratory O2 < low limit	
BATTERY[2]	Battery low	
Patient Disconnect[2]	Breathing system disconnected	
APL Valve?[1]	Check APL valve	
Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Loops[1]		

Mode Display	
Mode at Device	**Mode at Infinity CentralStation**
IPPV	IPPV[3]
SIMV[1]	SIMV
PCV[1]	PC
Standby	Standby
PSV[1]	PS
Man/Spont	Man/Spont
Fresh Gas external	Fresh Gas EXT

[1]Not applicable to Dräger Fabius CE
[2]Applicable only to Dräger Fabius CE
[3]In some languages IPPV is used for CMV or VC
[4]Applicable only to Dräger Fabius GS

Dräger Apollo Anesthesia System

NOTE: The Dräger Apollo Anesthesia System is not commercially available in Canada and its future availability cannot be ensured.

Parameter	Description	Displayed in...
[HAL, ISO, ENF, SEV, DES]	Expired and inspired agent	Ventilator Settings screen (page 17-8)
ECO2	Expired CO2	
eO2	Expired O2	
iN2O	Inspired N2O	
iO2	Inspired O2	
MAP	Mean Airway Pressure	
MVe	Minute Volume, expired	
Pause	Pause Pressure	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory airway pressure	
RRc	Respiratory rate	
RRv	Respiratory rate	
TVe	Tidal volume, expired breath	
Baro Prsr	Barometric Pressure	
Leakage	Leakage	
iMAC	Inspired MAC	
eMAC	Expired MAC	
APNEA t	Apnea Duration	
Delta O2	(iO2 - eO2)	
Setting	**Description**	**Displayed in...**
TVi set	Inspired Tidal Volume setting	Ventilator Settings screen (page 17-8)
I:E I part	I:E ratio - inspiratory component	
I:E E part	I:E ratio - expiratory component	
IPPV FREQ	IPPV frequency setting	
INT PEEP set	Intermittent PEEP setting	
PIP set	PIP setting	

Alarm Messages	Description	Displayed in...
APNEA	Apnea	Main Screen-lower right hand corner of the top waveform channel Bed View-information area, right below menu buttons Alarm causes that are labelled as '*Ventilator Alarm*' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
Paw > HI LIM	Airway pressure > high limit	
Ventilator Alarm	• Mean Airway Pressure < -2 mbar • PEEP > Pressure Threshold for 15 seconds • Problems with Respirator • No Fresh Gas • Check APL Valve • Pressure Measurement Inoperable • Internal System Fault • Power Supply Error • Problems with Ventilator • Loss of Data	
O2 SUPPLY?	O2 Supply Pressure Low	
iO2 < LO LIM	Inspiratory O2 < low limit	
BATTERY	Battery Low	
Patient Disconnect	Breathing System Disconnected	
Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Loops		
Mode Display		

Mode at Device	Mode at Infinity CentralStation
IPPV	IPPV[1]
SIMV	SIMV
PCV	PC
VCV	VC
Standby	Standby
PSV	PS
Man/Spont	Man/Spont
Fresh Gas external	Fresh Gas EXT
Pressure Support added to Volume Control	VC+PS
Pressure Support added to Pressure Control	PC+PS

[1]In some languages IPPV is used for CMV or VC

Dräger Zeus Anesthesia System

NOTE: The Zeus Anesthesia System is not commercially available in the U.S. and its future availability cannot be ensured.

Parameter	Description	Displayed in...
Air Flow	Air flow	Ventilator Settings screen (page 17-8)
Baro Prsr	Barometric Pressure	
Cdyn	Compliance	
et[HAL, ISO, ENF, SEV, DES]	Expired agent	
etCO2	Expired CO2	
etN2O	Expired N2O	
etO2	Expired O2	
i[HAL, ISO, ENF, SEV, DES]	Inspired agent	
iCO2	Inspired CO2	
iN2O	Inspired N2O	
iO2	Inspired O2	
Leakage	Leakage	
MAP	Mean Airway Pressure	
MVe	Minute Volume, expired	
MVe s	Minute Volume, spontaneous	
MVm	Mandatory MV	
N2O Flow	Nitrous oxide flow	
O2 Flow	Oxygen flow	
O2 Supply Prsr	O2 supply pressure	
Pause	Pause Pressure	
PIP	Peak inspired airway pressure	
Raw	Resistance	
RRc	Respiratory rate (CO2)	
RRm	Respiratory rate (mandatory)	
RRv	Respiratory rate (volume/flow)	
TVe	Tidal volume, expired breath	
TVm	Mandatory Tidal volume	
TVs	Spontaneous Tidal volume	

Setting	Description	Displayed in...
ASB RAMP set	Assisted spontaneous breathing ramp	Ventilator Settings screen (page 17-8)
F Gas Flow	Fresh gas flow	
FLOW Trig set	Flow trigger Level setting	
I:E E part	I:E ratio - expiratory component	
I:E I part	I:E ratio - inspiratory component	
INT PEEP set	Intermittent PEEP setting	
IPPV FREQ	IPPV frequency setting	
PEEP set	PEEP setting	
PIP set	PIP setting	
Te set	Expiratory time setting	
Ti set	Inspiratory time setting	
TVi set	Inspired Tidal Volume setting	
Alarm Messages	**Description**	**Displayed in...**
AIR SUPPLY?	Air supply low	Main Screen-lower right hand corner of the top waveform channel Bed View-information area, right below menu buttons Alarm causes that are labelled as '*Ventilator Alarm*' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
AW-TEMP>HI LIM	Airway temperature exceeds high limit	
etCO2< LO LIM	etCO2 below lower limit	
etCO2>HI LIM	etCO2 exceeds upper limit	
iO2 > HI LIM	Inspiratory O2 exceeds high limit	
iO2 < LO LIM	Inspiratory O2 below low limit	
MVe < LO LIM	MVe below lower alarm limit	
MVe > HI LIM	MVe exceeds upper alarm limit	
O2 SUPPLY?	O2 Supply Pressure Low	
Paw > HI LIM	Airway pressure > high limit	
Ventilator Alarm	• Check Flow Sensor • Battery error • CO2 device error • Problems with respirator • Check expiration valve	
Waveforms		
CO2		Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Paw	Airway Pressure	
Mode Display		
Mode at Device		**Mode at Infinity CentralStation**
IPPV		IPPV
IPPV/AutoFlow		IPPV
PCV		PC
SIMV/AutoFlow		SIMV
Standby		Standby

Ohmeda Modulus CD Anesthesia System

Parameter	Description	Displayed in...
MAP	Mean Airway Pressure	Ventilator Settings screen (page 17-8)
MVe	Minute Volume, expired	
Pause	Pause Pressure	
PIP	Peak inspired airway pressure	
RRv	Respiratory rate (volume/flow)	
TVe	Tidal volume, expired breath	
Selected Settings		
iO2 set	iO2 setting	Ventilator Settings screen (page 17-8)

Dräger BabyLog Ventilator

Parameters		
Gas Trans Coeff	Gas transport coefficient	Ventilator Settings screen (page 17-8)
I:E I-Part	I:E ratio (Inspiratory component)	
iO2	Inspired O2	
TV Leak	Leakage in system	
MAP	Mean airway pressure	
MVe	Expired minute volume - high resistance	
MVe / I	Expired minute volume - low resistance	
MV s%	Minute volume, spontaneous fraction	
PEEP	Peak end expiratory pressure	
PIP	Peak inspired airway pressure	
RRv	Respiratory rate - vol/flow	
TVeml	Tidal volume, expiratory	
TVhfml	Tidal volume, high frequency	
Settings		
APNEA TIME	Apnea time limit	Ventilator Settings screen (page 17-8)
FLOW	Expiratory flow setting	
i FLOW	Inspiratory flow setting	
SIMV FREQ	Frequency, IMV	
HFV AMPL	High frequency ventilation (HFV) mode amplitude	
HFV FREQHz	HFV mode frequency	
I:E E-Part	I:E ratio - expiratory component	
Te set	I:E ratio (expiratory time)	
I:E I-Part	I:E - inspiratory component	
Ti set	Inspiratory time	
iO2 set	Inspired O2 setting	
MV ALM DLY	Minute volume alarm delay	
MV HI LIM	Upper minute volume alarm limit	
MV LO LIM	Lower minute volume alarm limit	
PIP set	PIP setting	
PEEP set	PEEP setting	
TRIG VOL	Trigger volume	
Vent:	Babylog	

Dräger Evita 1 Ventilator

NOTE: The Dräger Evita 1 Ventilator is not commercially available in the U.S. and its future availability cannot be ensured.

Alarm Messages	Description	Displayed in....
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen-lower right hand corner of the top waveform channel Bed View-information area, right below menu buttons Alarm causes that are labelled as 'Ventilator Alarm' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
AW -TEMP>HI LIM	Airway temperature exceeds upper limit	
AW -TEMP INOP	Airway temperature measurement inoperable	
Ventilator Alarm	• Airway temperature sensor alarm • Check expiration - valve • Failed to cycle • The gas mixer is faulty • Faulty pressure measurement • Problems with respirator (Evita) • Respirator synchronization inoperable • The device temperature of the respirator is too high • Volume measurement unsuccessful • The volume is not constant • Faulty airway temperature measurement	
APNEA	Apnea alarm	
ASB>4 SEC	ASB is longer than 4 sec	
Patient	Patient Disconnect	
AIR SUPPLY?	Gas supply, air	
O2 SUPPLY?	Gas supply, O2	
iO2 > HI LIM	iO2 exceeds higher limit	
IO2 < LO LIM	iO2 is below lower alarm limit	
% O2 ERR	iO2 measurement inoperable	
MVe < LO LIM	Mve is below lower alarm limit	
MVe > HI LIM	Mve exceeds upper alarm limit	
RR > HI LIM	RR exceeds upper alarm limit	

Parameter Labels	Description	Displayed in....
AW Temp	Airway temperature	Ventilator Settings screen (page 17-8)
Cdyn	Dynamic compliance	
I:E I-Part	I:E ratio (inspiratory component)	
iO2	Inspired O2	
MAP	Mean airway pressure	
MVe	Expired minute volume	
MVe s	Spontaneous expired minute volume	
Occlusion Press	Occlusion pressure	
Paw MIN	Minimum airway pressure	
Pause	Pause pressure	
PEEP	Peak end expiratory airway pressure	
iPEEP	Peak end expiratory airway pressure, intrinsic	
PIP	Peak inspired airway pressure	
Raw	Dynamic resistance	
RRv	Respiratory rate - vol/flow - pediatric	
RRs	Spontaneous respiratory rate	
TVe	Tidal volume expired breath	
Trapped VOL	Trapped volume	
Selected Settings	**Description**	**Displayed in....**
APNEA TIME	Apnea time	Ventilator Settings screen (page 17-8)
ASB RAMP set	Assisted spontaneous breathing ramp	
ASB set	Assisted spontaneous breathing	
BIPAP HI P set	BIPAP high pressure	
BIPAP HI T set	HIPAP high time	
BIPAP LO P set	BIPAP low pressure	
BIPAP LO T set	BIPAP low time	
FLOW Trig set	Flow trigger	
SIMV FREQ	Frequency, IMV - SIMV	
IPPV FREQ	IPPV Frequency	
I:E E-Part	I:E ratio (expiratory component)	
I:E I-Part	I:E ratio (inspiratory component)	
iO2 set	Inspired O2 setting	
MAX iFLOW set	Maximum inspired flow	
PIP set	PIP setting	
PEEP set	PEEP setting	

Selected Settings (continued)	Description	Displayed in....
INT PEEP set	Intermittent PEEP setting	Ventilator Settings screen (page 17-8)
TACHY LENGTH	Tachyapnea duration	
TACHY FREQ	Tachyapnea frequency	
TVi set	Inspired tidal volume	
TRIG PRESS	Trigger pressure	
Vent:	Evita 1	

Dräger Evita 2 Ventilator

Alarm Messages	Description	Displayed in....
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - lower right hand corner of the top waveform channel Bed View - information area right below the menu buttons. Alarm causes that are labelled as 'Ventilator Alarm' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
AW -TEMP>HI LIM	AW -TEMP exceeds upper alarm limit	
Ventilator Alarm	• Airway temperature measurement unsuccessful • Check expiration - valve • Check flow sensor • CO2 device failure • CO2 not calibrated • CO2 sensor disconnected or malfunctioning • Failure to cycle • Gas mixer inoperable • Pressure measurement unsuccessful • Problems with respirator • Respirator synchronization inoperable • Device temperature is too high. • Volume measurement unsuccessful • Volume is inconsistent. • Airway temperature sensor alarm	
APNEA	Apnea alarm	
ASB>4 SEC	ASB is more than 4 sec	
Patient Disconnect	Patient may be disconnected from ventilator	
etCO2< LO LIM	etCO2 below lower alarm limit	
etCO2 > HI LIM	etCO2 exceeds upper alarm limit	
AIR SUPPLY?	Gas supply alarm, air	
O2 SUPPLY?	Gas supply alarm, O2	
iO2 < LO LIM	iO2 less than lower alarm limit	
iO2> HI LIM	iO2 exceeds upper alarm limit	
% O2 ERR	iO2 measurement unsuccessful	
MVe < LO LIM	MVe is below lower alarm limit	
MVe > HI LIM	MVe exceeds upper alarm limit	
PEEP > HI LIM	PEEP exceeds upper alarm limit	
RR > HI LIM	RR exceeds upper alarm limit	

Parameter Labels	Description	Displayed in....
Paw MIN	Minimum airway pressure	Ventilator Settings screen (page 17-8)
AW-Temp	Airway temperature	
VCO2	CO2 production, minute volume	
Cdyn	Dynamic compliance	
TVd aw%	Dead space	
TVd aw	Dead space, airway	
etCO2	end-tidal CO2	
I:E I-Part	I:E ratio (inspiratory component)	
iO2	Inspired O2	
MAP	Mean airway pressure	
MVe	Expired minute volume	
MVe s	Spontaneous expired minute volume	
Occlusion Press	Occlusion pressure	
Pause	Pause pressure	
PEEP	Peak end expiratory airway pressure	
iPEEP	Intrinsic peak end expiratory airway pressure	
PIP	Peak inspired airway pressure	
Raw	Dynamic resistance	
RRv	Pediatric respiratory rate - vol/flow	
RRs	Spontaneous respiratory rate	
TVe	Tidal volume expired breath	
Trapped VOL	Trapped volume	

Selected Settings	Description	Displayed in....
APNEA TIME	Apnea time	Ventilator Settings screen (page 17-8)
ASB RAMP set	Assisted spontaneous breathing ramp	
ASB set	Assisted spontaneous breathing	
BIPAP HI P set	BIPAP high pressure limit	
BIPAP HI T set	BIPAP high time limit	
BIPAP LO P set	BIPAP low pressure limit	
BIPAP LO T set	BIPAP low time limit	
FLOW Trig set	Flow trigger setting	
SIMV FREQ	Frequency, IMV - SIMV	
IPPV FREQ	Frequency IPPV	
I:E E-Part	I:E ratio - expiratory component	
I:E I-Part	I:E ratio - inspiratory component	
iO2 set	Inspired O2 setting	
MAX iFLOW set	Maximum inspired flow	
PIP set	Peak inspired airway pressure	
PEEP set	PEEP setting	
INT PEEP set	Intermittent PEEP setting	
TACHY LENGTH	Tachyapnea duration	
TACHY FREQ	Tachyapnea frequency	
TVi set	Inspired tidal volume setting	
TRIG PRESS	Trigger pressure	
Vent:	Evita 2	

Dräger Evita 2D / 4 / XL Ventilator

Alarm Messages	Description	Displayed in....
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons
AW-TEMP > HI LIM	Upper airway temperature exceeds upper alarm limit	
Ventilator Alarm	• AW-TEMP below lower alarm limit (Evita 2D / 4) • AW-TEMP measurement unsuccessful • Battery error (Evita XL) • Check expiration valve • Check flow sensor • CO2 device error • CO2 not calibrated (Evita 2D / 4) • CO2 Zero/Cal required • CO2 window dirty (Evita XL) • CO2 sensor disconnected or faulty • Cycle failure • Gas mixer inoperable • Pressure measurement unsuccessful • Device malfunction (Evita 2D / 4) • Synchronization malfunctioning (Evita 2D / 4) • Volume measurement unsuccessful • Volume not constant (Evita 2D / 4) • Neonatal flow sensor is not at the Y-piece • Pediatric volume measurement inoperable (Evita 2D / 4) • Neonate volume measurement inoperable (Evita XL) • PEEP valve is inoperable • Problems with respirator • Respirator synchronizations faulty • Safety mode if neonatal flow sensor not available (Evita 2D / 4) • Safety mode (Evita XL) • Standby • Loss of data • Inspiratory time in CPAP/PPS mode is less than 4 seconds (Evita 2D / 4) • Inspired time is greater than 1.5 seconds (Evita XL)	Alarm causes that are labelled as 'Ventilator Alarm' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator

Alarm Messages (continued)		
APNEA	Apnea alarm	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons
etCO2< LO LIM	etCO2 below lower limit	
etCO2>HI LIM	etCO2 exceeds upper limit	
AIR SUPPLY?	Gas supply alarm, air	
O2 SUPPLY?	Gas supply alarm, O2	
iO2 < LO LIM	iO2 less than lower alarm limit	
iO2 > HI LIM	iO2 exceeds upper alarm limit	
% O2 ERR	iO2 measurement unsuccessful	
MVe < LO LIM	MVe below lower alarm limit	
MVe > HI LIM	MVe exceeds upper alarm limit	
PEEP > HI LIM	PEEP exceeds upper alarm limit	
PEEP ERR	PEEP valve inoperable (Evita 2D / 4)	
RR > HI LIM	RR exceeds upper alarm limit	
TVe > HI LIM	TVe exceeds upper alarm limit	
ASB > 4 sec	Assisted Spontaneous Breathing exceeds 4 sec	
PATIENT DISCONNECT	Ventilator disconnected (Evita XL)	
Parameters		
Paw MIN	Minimum airway pressure	Ventilator Settings screen (page 17-8)
VCO2	CO2 production, minute volume	
Cdyn	Dynamic compliance	
TVd aw%	Dead space	
TVd aw	Dead space, airway	
etCO2	End-tidal CO2	
I:E I-Part	I:E ratio (inspiratory component)	
I:E E-Part	I:E ratio (expiratory component)	
iO2	Inspired O2	
MAP	Mean airway pressure	
MVe	Expired minute volume	
MVe s	Spontaneous expired minute volume spontaneous	
Occlusion Press	Occlusion pressure	
Pause	Pause pressure	
PEEP	Peak end expiratory pressure	
iPEEP	Intrinsic peak end expiratory pressure (Evita 2D / 4)	
PIP	Peak inspired airway pressure	
Raw	Dynamic resistance	
RRv	Pediatric respiratory rate - vol/flow	
RRs	Spontaneous respiratory rate	
Trapped VOL	Trapped volume	
TVe	Tidal volume expired breath	
AW-Temp	Airway temperature (Evita XL)	

Parameters (continued)		
Neg iForce	Negative inspiratory force (Evita XL)	Ventilator Settings screen (page 17-8)
Vtasb	Assisted spontaneous breathing, Support volume (Evita XL)	
Selected Settings		
APNEA TIME	Apnea time (s)	Ventilator Settings screen (page 17-8)
APRV Hi Prsr	APRV high pressure setting	
APRV Hi Time	APRV high time	
APRV Lo Prsr	APRV low pressure setting	
APRV Lo Time	APRV low time	
ASB RAMP set	Assisted spontaneous breathing ramp (s)	
ASB set	Assisted spontaneous breathing	
FLOW ASSIST	Flow assist	
FLOW Trig set	Flow trigger	
SIMV FREQ	Frequency, IMV - SIMV	
I:E E-Part	I:E ratio - expiratory component	
I:E I-Part	I:E ratio - inspiratory component	
iO2 set	Inspired O2 setting	
MAX iFLOW set	Maximum inspired flow setting	
PIP set	Peak inspired airway pressure	
PEEP set	PEEP setting	
INT PEEP set	Intermittent PEEP setting	
TACHY FREQ	Tachyapnea frequency	
TVi set	• Tidal volume, inspired • Tidal volume setting	
TV set	Inspired time (Evita XL)	
Vent:	The selected ventilator type	
VOL ASSIST	Volume assist	
Patient Type	Adult, Pedi, or Neonate (Evita XL)	

Ventilation Mode Display (Evita XL)	
Ventilation Mode at Device	**Mode at Infinity CentralStation**
IPPV, IPPV/Autoflow, IPPV/Assist/Autoflow, or IPPV/Assist	IPPV
SIMV, SIMV/ASB, SIMV/Autoflow, or SIMV/ASB/Autoflow	SIMV
CPAP, CPAP/PPS, or CPAP/ASB	CPAP
Standby	Standby
MMV, MMV/Autoflow, or MMV/ASB/Autoflow	MMV
BIPAP Assist	BIPAP
CMV	CMV

Waveforms (Evita XL)		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Loops	Ventilator loops	

Dräger Savina Ventilator

Parameters	Description	Displayed in...
Cdyn	Dynamic compliance	Ventilator Settings screen (page 17-8)
I:E I-Part	I:E ratio (inspiratory component)	
I:E E-Part	I:E ratio (expiratory component)	
iO2	Inspired O2	
MAP	Mean airway pressure	
MVe	Expired minute volume	
MVe s	Spontaneous expired minute volume spontaneous	
Pause	Pause pressure	
PEEP	Peak end expiratory pressure	
PIP	Peak inspired airway pressure	
Raw	Dynamic resistance	
RRv	Pediatric respiratory rate - vol/flow	
RRs	Spontaneous respiratory rate	
TVe	Tidal volume expired breath	
AW -Temp	Airway temperature	
Max iFlow	Peak Flow	
Ti	Inspired Time	
Selected Settings		
APNEA TIME	Apnea time (s)	Ventilator Settings screen (page 17-8)
ASB set	Assisted spontaneous breathing	
FLOW Trig set	Flow trigger	
SIMV FREQ	Frequency, IMV - SIMV	
I:E E-Part	I:E ratio - expiratory component	
I:E I-Part	I:E ratio - inspiratory component	
iO2 set	Inspired O2 setting	
PIP set	Peak inspired airway pressure	
PEEP set	PEEP setting	
INT PEEP set	Intermittent PEEP setting	
Ti set	Inspired time setting	
TVi set	Tidal Volume, Inspired	
Flow Accel	Flow acceleration	
Tdeconnect	Disconnect time	
FREQbackup	Backup frequency	
TVbackup	Backup of Tidal Volume	

Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Loops	Ventilator loops	
Alarm Messages	**Description**	**Displayed in...**
iO2 < LO LIM	iO2 less than lower alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons Alarm causes that are labelled as '*Ventilator Alarm*' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
iO2 > HI LIM	iO2 exceeds upper alarm limit	
O2 SUPPLY?	Gas supply alarm, O2	
MVe < LO LIM	MVe below lower alarm limit	
MVe > HI LIM	MVe exceeds upper alarm limit	
PEEP > HI LIM	PEEP exceeds upper alarm limit	
TVe > HI LIM	TVe exceeds upper alarm limit	
Paw > HI LIM	Paw exceeds upper alarm limit	
AW-TEMP > HI LIM	Airway temperature exceeds upper alarm limit	
APNEA	Apnea alarm	
RRv > HI LIM	Respiratory rate exceeds upper alarm limit	
ASB > 4 sec	Assisted spot breathing exceeds 4 seconds	
BATTERY	• Battery problem • Low battery	
Patient Disconnect	Ventilator disconnection	
iO2 ERR	Inspired O2 measurement inoperable	
Ventilator Alarm	• Check flow sensor • Standby • PEEP control problems • Problems with respirator • Volume measurement inoperable • Pressure measurement inoperable • Check expiration - valve • Airway temperature measurement inoperable • Fail to cycle • Fan problem	

Ventilation Mode Display	
Ventilation Mode at Device	**Mode at Infinity CentralStation**
BIPAP or BIPAP/ASB	BIPAP
IPPV, IPPV/Autoflow, IPPV/Assist/Autoflow, or IPPV/Assist	IPPV
SIMV, SIMV/ASB, SIMV/Autoflow, or SIMV/ASB/Autoflow	SIMV
CPAP or CPAP/ASB	CPAP
Standby	Standby

P-B 7200/840 Ventilators

Alarm Messages	Description	Displayed in...
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons Alarm causes that are labelled as 'Ventilator Alarm' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
Paw < LO LIM	Paw fell below lower alarm limit	
APNEA	Apnea event	
AIR SUPPLY	Gas air supply pressure	
O2 SUPPLY	Gas O2 supply pressure	
Ventilator Alarm	I:E Alarm	
Ventilator Alarm (P-B 7200 only)	Leakage, system	
MVe<LO LIM	MVe is below lower alarm limit	
PEEP<LO LIM (P-B 7200 only)	PEEP is below lower alarm limit	
RR>HI LIM	RR exceeds upper alarm limit	
TVe<LO LIM	Tidal volume is low	
Parameter Labels		
Cdyn (P-B 7200 only)	Dynamic compliance	Ventilator Settings screen (page 17-8)
Cs (P-B 7200 only)	Static compliance	
I:E E-Part	I:E ratio (expiratory component)	
I:E I-Part (P-B 840 only)	I:E ratio (inspiratory component)	
MAP	Mean airway pressure	
MVe	Expired minute volume	
MVe s	Spontaneous minute volume	
Pause	Pause pressure	
PIP	Peak inspired airway pressure	
Raw	Dynamic resistance	
Rs	Static resistance	
RRv	Respiratory rate	
TVe	Tidal volume expired breath	
VC	Vital capacity	

Selected Settings		
FLOW WAVE set	Flow waveform setting	Ventilator Settings screen (page 17-8)
FREQ set	Frequency	
iO2 set	Inspired O2 setting	
100%O2	Inspired O2% setting	
NEBUL set	Nebulizer setting	
PIF set	Peak inspiratory flow setting	
PEEP set	PEEP setting	
Plateau set	Plateau setting	
SIGH ON	Sigh enabled	
TVi set	Tidal volume	
TRIG PRESS	Trigger pressure	
VENT MODE	Selected ventilation mode	
VENT:	Selected Ventilator type	
Waveforms (P-B 7200 only)		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	

Taema Horus Ventilator

NOTE: The Taema Horus ventilator is not commercially available in the U.S. and its future availability cannot be ensured.

Alarm Messages	Description	Displayed in...
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons Alarm causes that are labelled as 'Ventilator Alarm' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
APNEA	Apnea event	
Expiration Valve?	Check expiration - valve	
Patient Disconnect	Patient may be disconnected from ventilator	
I:E Alarm	I:E error	
iO2 < LO LIM	iO2 is below lower alarm limit	
iO2 > HI LIM	iO2 exceeds upper alarm limit	
MVe < LO LIM	MVe is below lower alarm limit	
MVe > HI LIM	MVe exceeds upper alarm limit	
PEEP > HI LIM	PEEP exceeds upper alarm limit	
Flow Sensor?	Check flow sensor	
AIR SUPPLY?	Gas supply alarm, air	
O2 SUPPLY?	Gas supply alarm, O2	
Parameter Labels	**Description**	**Displayed in...**
Cdyn	Dynamic compliance	Ventilator Settings screen (page 17-8)
MAP	Mean airway pressure	
MVe	Expired minute volume	
MVi	Inspired minute volume	
Pause	Pause pressure	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory pressure	
RRv	Respiratory rate	
TVe	Tidal volume, expired	
TVi	Tidal volume, inspired	
iO2	Inspired O2	

Selected Settings	Description	Displayed in...
FREQ set	Frequency	Ventilator Settings screen (page 17-8)
PEEP set	PEEP setting	
TVi set	Tidal volume	
TRIG PRESS	Trigger pressure	
VENT MODE	Selected ventilation mode	
VENT:	Selected Ventilator type	
Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	

Hamilton Galileo Ventilator

Alarm Messages	Description	Displayed in...
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons Alarm causes that are labelled as 'Ventilator Alarm' refer to non-clinical device conditions. All other alarm messages refer to clinical events that violate a setting that can be configured at the ventilator.
Ventilator Alarm	• Minute volume exceeds upper alarm limit • Failure to cycle • Gas supply alarm • PEEP valve inoperable • Ventilator disconnect	
APNEA	Apnea alarm	
%O2 Error	%O2 measurement error	
MVe < LO LIM	MVe below lower alarm limit	
RR > HI LIM	RR exceeds upper alarm limit	
Parameter Labels		
Cdyn	Dynamic compliance	Ventilator Settings screen (page 17-8)
I:E E-Part	I:E ratio (expiratory component)	
I:E I-Part	I:E ratio (inspiratory component)	
iO2	Inspired O2	
MAP	Mean airway pressure	
MVe	Expired minute volume	
Pause	Pause pressure	
PIP	Peak inspired airway pressure	
PEEP	Peak end expiratory airway pressure	
Raw	Dynamic resistance	
RRv	Pediatric respiratory rate - vol/flow	
RRs	Spontaneous respiratory rate	
TVe	Tidal volume, expired	
TVi	Tidal volume, inspired	
iO2	Inspired O2	
Selected Settings		
iO2 set	Inspired O2 setting	Ventilator Settings screen (page 17-8)
INSP t%	I:E ratio, inspiratory component	
PAUSE t%	I:E ratio, expiratory component	
PEEP set	PEEP setting	
TVi set	Inspired tidal volume setting	
TRIG PRESS	Trigger pressure	
Vent:	Selected Ventilator type	

Maquet SV 300/SV 300A/Servo*i* Ventilator

Alarm Messages	Description	Displayed in...
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons
APNEA	An apnea detected	
BATTERY	Battery alarm	
CMV potentiometer	CMV potentiometer error	
GAS SUPPLY?	Gas supply alarm	
HI CONT PRESS	High continuous pressure	
iO2 < LO LIM	iO2 is below lower limit	
iO2 > HI LIM	iO2 exceeds upper limit	
MAINS FAIL	Mains failure	
MVe > HI / LO LIM	MVe is too high/too low	
VENT ERR	Mode switch error	
% O2 ERR	O2 cell disconnect, or O2 potentiometer error	
DEVICE ERR	Over range or Range switch error	
Labels/Settings		
BAROM PRESS	Barometric pressure	Ventilator Settings screen (page 17-8)
AIR SUPPLY	Gas air supply pressure	
O2 SUPPLY	Gas O2 supply pressure	
[1]I:E I-Part	I:E ratio (inspiratory component)	
[1,2]INSP t%	I:E ratio (inspiratory component)%	
iO2	Inspired O2	
MAP cmH20	Mean airway pressure	
MVe l	Expired minute volume	
MVi l	Inspired minute volume	
Pause	Pause pressure	
PEEP	Peak end expiratory pressure	
PIP	Peak inspired pressure	
RRv	Respiratory rate	
TVe	Tidal volume expired breath	
TVi	Tidal volume inspired breath	
CMV FREQ	Frequency of CMV setting	
SIMV FREQ	Frequency of SIMV setting	

Labels/Settings (continued)	Description	Displayed in...
INSP t%	I:E ratio - inspiratory component	Ventilator Settings screen (page 17-8)
I RISE%	I:E ratio - inspiratory rise time component	
PAUSE t%	I:E ratio - pause component	
iO2 set	iO2 setting	
iO2 set LO	Lower alarm limit of iO2	
iO2 HI LIM	Upper alarm limit of iO2	
MVe LO LIM	Lower alarm limit of MVe	
MVe HI LIM	Upper alarm limit of MVe	
PATIENT RANGE	Patient type (Adult= 4; Pediatric=15; Neonate=16)	
PEEP set	PEEP setting	
P CTL > PEEP	Pressure control level above PEEP	
P HI LIM	Upper pressure alarm limit	
P SUPPORT	Pressure support level above PEEP.	
TRIG SENS > PEEP	Trigger sensitivity level below PEEP	
VENT MODE[3]	Ventilation mode setting	
SV 300, SV 300A, Servo*i*	Selected Ventilator type	
VOL set	Volume setting	
Paw	Airway pressure	
Flow	Flow (insp/exp)	

Ventilation Mode Display (*Servo*^{i})	
Ventilation Mode at Device	**Mode at Infinity CentralStation**
SIMV (PRVC)	SIMV (PRVC)

[1]Certain parameters, identified as measured values, are derived from other values or settings provided by the ventilator and may not reflect actual values. See the operating instructions for your specific monitor or ventilator for detailed information on derived measurements.

[2]Display of I:E value may be affected by mode of ventilation.

[3]Mode value may be blanked during certain conditions and modes of ventilation.

Maquet SV 900 Ventilator

Parameters	Description	Displayed in...
RRv	Respiratory rate	Ventilator Settings screen (page 17-8)
TVe	Tidal volume, expired	
Tvi	Tidal volume, inspired	
MVi	Minute volume, inspired	
MVe	Minute volume, expired	
PIP	Peak inspired airway pressure	
MAP	Mean airway pressure	
Pause	Pause pressure	
PEEP	Peak End Expiratory Pressure	
iO2	Inspired O2	

Viasys Bear 1000 Adult Ventilator

Alarm Messages	Description	Displayed in...
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons
Paw < LO LIM	Paw is below lower limit	
GAS SUPPLY?	Gas supply alarm	
RR > HI LIM	Respiratory rate exceeds upper alarm limit	
RR < LO LIM	Respiratory rate is below lower limit	
MVe < LO LIM	Minute volume is below lower limit	
MVe > HI LIM	Minute volume exceeds upper alarm limit	
I:E Alarm	I:E Limit (I:E Error)	
Cycle Failed	Fail to cycle	
Parameters		
PIP	Peak inspired airway pressure	Ventilator Settings screen (page 17-8)
MAP	Mean airway pressure	
%MMV	% Mandatory minute ventilation	
TVe	Tidal volume, expired	
Ti	Inspiratory time	
MVe	Minute volume, expired	
MVe s	Spontaneous minute volume	
RRv	Respiratory rate	
Pause	Pause (plateau) pressure	
RRs	Respiratory rate, spontaneous	
Settings		
Ti set	Inspiratory time	Ventilator Settings screen (page 17-8)
iO2 set	Inspired O2 setting	
MAX iFLOW set	Maximum inspiratory flow	
TVi set	Tidal volume, inspired	
Pause t	I:E ratio (Pause component) Inspiratory pause	
Pslope	Pressure slope	
TRIG PRESS	Pressure trigger sensitivity	
FLOW Trig set	Flow trigger	
Paw set	Inspiratory pressure	
MMV	Mandatory minute ventilation	
Freq set	Breath rate	
PSupport	Pressure support	

Ventilation Mode Display		
Ventilation Mode at Device		**Mode at Infinity CentralStation**
Assist Control		Assist Control
Pressure Control		PCV
SIMV/CPAP/PSV		SIMV/CPAP/PSV
PC-SIMV/CPAP/PSV		PC-SIMV/CPAP/PSV
Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Loops	Ventilator loops	

Viasys BearCub 750 Infant Ventilator

Alarm Messages	Description	Displayed in...
Paw > HI LIM	Paw exceeds upper alarm limit	Main Screen - in the lower right hand corner of the top waveform channel Bed View - in the information area right below the menu buttons
Paw < LO LIM	Paw is below lower limit	
GAS SUPPLY?	Gas supply alarm	
RR > HI LIM	Respiratory rate exceeds upper alarm limit	
PEEP < LO LIM	Peak End Expiratory Pressure is below lower limit	
MVe < LO LIM	Minute volume is below lower limit	
APNEA	Apnea	
Battery	Low battery supply	
Cycle Failed	Fail to cycle	
Parameters		
PIP	Peak inspired airway pressure	Ventilator Settings screen (page 17-8)
PEEP	Peak End Expiratory Pressure	
Te	Expiratory time	
TVe	Tidal volume, expired	
Ti	Inspiratory time	
MVe	Minute volume, expired	
RRv	Respiratory rate	
TVi	Tidal volume, inspired	
MAP	Mean Airway Pressure	
O2 Supply Prsr	O2 Supply pressure	
Settings		
Ti set	Inspiratory time	Ventilator Settings screen (page 17-8)
Freq set	Breath rate	
Vlimit	Volume limit setting	
FLOW Trig set	Flow trigger setting	
iFLOW set	Inspiratory flow setting	

Ventilation Mode Display		
Ventilation Mode at Device		**Mode at Infinity CentralStation**
Assist Control		Asst Ctrl
PSV		PSV
SIMV/IMV		SIMV/IMV
CPAP		CPAP
SIMV/PSV		SIMV/PSV
SIMV (Flow Cycled)		SIMV-Flow Cycle
Flow Cycled A/C		Asst Ctrl-Flow Cycle
Waveforms		
Paw	Airway Pressure	Ventilator Screen (page 17-5)
Flow	Flow (Insp/exp)	
Loops	Ventilator loops	

Baxter Vigilance/Vigilance II Cardiac Output Monitor

Parameters	Description	Displayed in...
BT	Blood Temperature	Ventilator Settings screen (page 17-8)
CCO	Continuous Cardiac Output	
CCI	Continuous Cardiac Output Index	
ICO	Intermittent Cardiac Output	
ICI	Intermittent Cardiac Output Index	
SaO2	Arterial Oxygen Saturation	
SvO2	Venous Oxygen Saturation	
SVR	Systemic Vascular Resistance	
SVRI	Systemic Vascular Resistance Index	
VO2	O_2 Consumption	
DO2	O_2 Delivery	
The following parameters are available from the Baxter Vigilance II only.		
SV	Stroke Volume	
SVI	Stroke Volume Index	
EDV	End Diastolic Volume	
EDVI	End Diastolic Volume Index	
ESV	End Systolic Volume	
ESVI	End Systolic Volume Index	
EF	Ejection Fraction	

$etCO_2$/Respiratory Mechanics Pod

Parameters	Description	Displayed in...
PIP	Peak inspired pressure	Ventilator Settings screen (page 17-8)
PEEP	Peak end expiratory pressure	
MAP	Mean arterial pressure	
TVi s	Inspired tidal volume, spontaneous	
TVi m	Inspired tidal volume, mechanical	
TVe s	Expiratory tidal volume, spontaneous	
TVe m	Expiratory tidal volume, mechanical	
TVd aw	Dead space, airway	
MVe s/m	Expiratory minute volume spontaneous/ mechanical	
MVe	Expiratory minute volume	
RR s/m	Respiratory rate, spontaneous/mechanical	
RRv	Respiratory rate	
Cdyn	Dynamic compliance	
C20/Cdyn	Dynamic compliance of the last 20% breath	
Raw e	Dynamic resistance	
PEF	Peak Expiratory Flow	
TValv	Alveolar tidal volume	
MValv s/m	Minute volume	
VCO2	CO2 production, minute volume	

18 Biomed Functions

Biomed Screen Selections

The Biomed functions are password-protected and intended only for the hospital's biomedical personnel or Dräger service representatives.

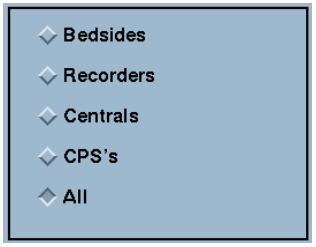
Selection	Description
Show Devices...	Allows your Biomed to view the status of network devices within the monitoring unit of the Infinity CentralStation
Configure Central...	Provides access to setup features
Configure Locked Options...	Allows your Biomed to enable available options
System Console...	Activates a window from where you can perform remote diagnostics, shut down the Infinity CentralStation, select Rest ECG report formats, etc.
Diagnostic Log	Displays log of 1000 hardware and software error conditions
Clinical Events Log	Displays log of 1000 clinically significant events, such as alarm detection, Alarm Silence requests, recording status, and remote control of bedside monitors.
Configure Telemetry...	Accesses Telemetry set up functions (page 18-11)

Accessing the Biomed Screens

1. Click on **Biomed** in the Main Screen menu bar.
2. Click on the desired menu selection.
   The password popup window displays.
3. Enter the Biomed password in the password popup.
4. Click on **Accept** in the password popup.

Show Devices Screen

The **Biomed - Show Devices** screen lists status information for all network devices assigned to the monitoring unit of the specific Infinity CentralStation. To open the **Biomed - Show Devices** screen see page 18-2.

Selection	Description
Show Central Status	Opens a popup with status information for the Infinity CentralStation
	Radio buttons for listing device-specific information
	Scrolls pages of information

Configure Central Screen

Biomed - Configure Central Screen Selections

Selection	Description	Available Settings	Factory Default
Hospital Name	Defines hospital name	25 character max.	
Language	Displays the language that was set during installation		
Biomed Password	Sets or modifies Biomed password	8 character max.	
Clinical Password ON/OFF	Enables/disables clinical password	**ON / OFF**	**ON**
Clinical Password	Sets or modifies clinical password	8 character max.	**MVWS**

Selection	Description	Available Settings	Factory Default
Central Layouts Password	Enables/disables password protection If enabled, screen is password protected.	**ON / OFF**	**OFF**
Printer Connected	Sets printer connection	• **OFF** • **Network** (Central station is connected to a network printer.) • **Local** (Printer is connected directly to the Infinity CentralStation.)	**OFF**
Network Printer Address	Displays network printer IP address configured during installation (for viewing only)		
Cabrera	Permits activation/deactivation of the hex axial lead configuration When you turn Cabrera on, the leads are displayed in the hex axial display format. If you turn Cabrera off, the leads appear in standard mode.	**ON/OFF**	**OFF**
Event Class Editor	Permits editing of user-selectable event classification labels (page 18-5)	**Edit / Hide**	**Hide**
Patient Confidentiality	Determines whether a patient's name appears on Infinity CentralStation displayed screens	**ON / OFF**	**OFF**
Restore Default Settings	Restores system default settings		
Hospital Label	Identifies the hospital label for the network	7 character max	
Monitoring Unit Label	Identifies the monitoring unit to which the Infinity CentralStation is assigned	7 character max	
Care Unit Label	Identifies the care unit to which the Infinity CentralStation is assigned	7 character max	
Host Label	View only		

NOTE: Whenever you restore defaults the Infinity CentralStation must be restarted. An entry is made to the clinical events log.

To edit Event Class:

1. Open the **Biomed - Configure Central** screen (page 18-2).
2. Click on the toggle button next to **Event Class Editor** so that it displays **Edit.** A popup displays with ten default labels.

Class Name	Class Description
AFIB	Atrial Fibrillation
ATAC	Atrial Tachycardia
BBB	Bundle branch block
PNC	Pacer not captured
PNP	Pacer not pacing
TRIG	Trigeminy
MTI	Multifocal PVC
RONT	R-on-T
IRR	Irregular HR
NVTA	Non-sustained VTAC

3. After you make the desired changes, click on **Accept** to save changes or **Undo**.

To modify Configure Central selections:

1. Open the **Biomed - Configure Central** screen (page 18-2).
2. Select a button or text entry box to set and click.
3. After entering information and modifying settings click on **Accept** to save changes or **Undo**.

Configure Locked Options Screen

This screen lists software that must be purchased separately and can only be enabled with a unique password for each Infinity CentralStation. For a list of available software options, contact your local Dräger representative.

Enabling Available Options

1. Open the **Configure Locked Options** screen (page 18-2).
2. Click on one of the available menu choices.
3. Enter the password for the option you wish to enable.
4. Click on **Accept**.
   After an option is enabled, a popup displays the message:
   The Infinity CentralStation must be restarted to allow the locked options to take effect.
5. Restart the Infinity CentralStation.

Whenever you lock or enable an option, a message is stored in the clinical events log.

Raid Option

With the Infinity CentralStation RAID Option, RAID 1 mirroring provides disclosure disk redundancy by writing all full/event disclosure data to two identical hard drives. With this option configured, all disclosure disk data is written to a second, identical hard drive in the background.

CAUTION: *In the event of a RAID (Redundant Array of Independent Disks) failure, no tone sounds, and no message appears. However, an LED on the hard drive that failed will light.*

System Console

This Biomed menu selection activates a console window with a prompt from which you can:

- Run remote diagnostics for all network devices,
- Shut down or restart the Infinity CentralStation,
- Review an alarm history log for telemetry patient channels consisting of the last 5000 events (with time and date of the alarm occurrences), and
- Select Rest ECG report formats

To open the **System Console** see page 18-2.

Rest ECG Reports

Rest ECG reports are available in several formats which you can customize. As soon as the data arrives from the bedside monitor, the Infinity CentralStation analyzes it and generates a printed report.

Whenever the Infinity CentralStation issues a report successfully, an entry is made in the clinical events log. If a report cannot be processed successfully, an entry is made in the diagnostic log (page 18-9). If multiple printing requests exist, the Rest ECG report is queued until the assigned printer becomes available.

WARNING: Diagnosis based on interpretation of 12-lead monitoring results should only be done by qualified personnel. Prior to final interpretation and diagnosis, qualified physicians should review suggested diagnostic statements and all other available information

Available Report Formats

The format of a Rest ECG report determines the layout and the type of information included in the report. For more detailed information on generating ECG reports, please refer to the bedside monitor documentation.

Report Type	Resolution	Diagnostic Statements Y/N	# of Pages	Orientation
6x2 waves, 2.5 s	50 mm/s	Y	1	Landscape
6x2 waves, 2.5 s		N	1	
6x2 waves, 2.5 s		Y	2	Landscape, cabrera
6x2 waves, 2.5 s		N	1	
Complexes and 3 waves (V1, II, V5) 7 s	*Complexes*: 50mm/s *Waveforms*: 25mm/s	Y	1	Portrait, standard
12 waveforms, each 5 s	50 mm/s	N	2	Cabrera

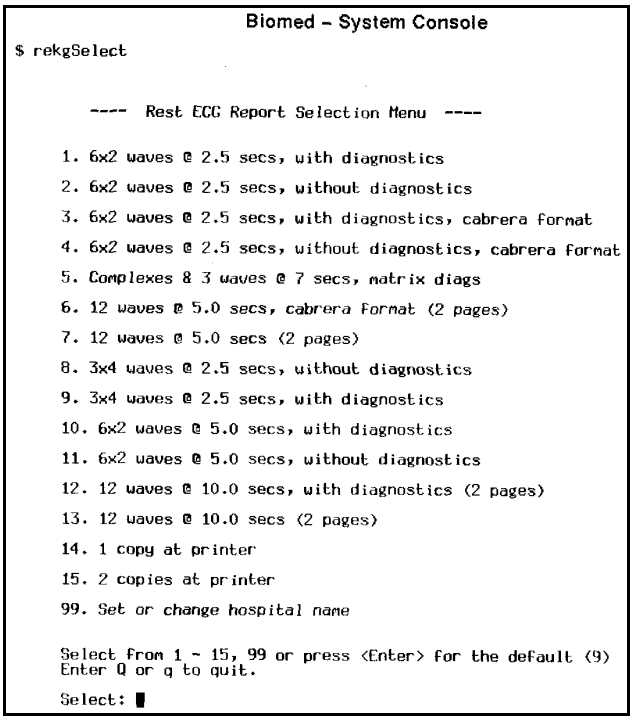
12 waveforms, each 5 s	50 mm/s	N	2	Landscape
12 waveforms, each 10s	50 mm/s	Y	1	
12 waveforms, each 10s	50 mm/s	N	2	
3x4 waveforms, each 2.5 s	25 mm/s	N	1	
3x4 waveforms, each 2.5 s	25 mm/s	Y	2	
6x2 waveforms, each 5 s	25 mm/s	Y	1	
6x2 waveforms, each 5 s	25 mm/s	N	1	

Accessing the Rest ECG Report Selection Menu

1. Open the **System Console** (page 18-2).
2. At the system prompt type the following:

   rekgSelect

   A selection list appears.



3. Enter the number before the format or function you wish to select (1 - 15, 99) or press <**Enter>** for the default (9).

   If you want to change hospital name you must type the new information after making your selection, then press <**Enter>** on the keyboard.

Viewing Logs

The password-protected diagnostic and clinical events logs support recording hardware and software conditions and clinical events. The *Diagnostic log* contains a record of up to 1000 hardware and software events and are helpful in determining system status. The *Clinical Events log* contains information on up to 1000 events of clinical significance.

Typical clinical events log entries may include:

- Transitions in/out of local alarm silence
- Infinity CentralStation Alarm State Change (e.g., Audible Alarm Annunciation Change from active to silenced or vice versa)
- Alarm Limit Change from the Infinity CentralStation
- Arrhythmia Setup Change from the Infinity CentralStation
- Bedside State Change (e.g., on-line, off-line)
- CPS/IDS State Change (e.g., on-line, off-line, duplicate IP address detected)
- Main Screen Layout Change
- Edits of Patient Demographics
- Alarm Volume Change
- Clinical Password Modification
- Language Change
- Restoration of Factory Default Settings
- Recording Status (other than cancellation of continuous or timed recordings)
- Recorder State Change (e.g., Recorder off-line, Recorder Failure, CPS/IDS Off-line)
- Time and Date Change
- Locked Options Change
- A request for SPO2 with no additional SPO2 licenses available
- Infinity CentralStation detection of incompatible Infinity M300 software

Log entries appear as separate lines and are displayed in chronological order with the most recent entry at the top. Each entry includes date, time, event class, event code, and event description.

To open the **Diagnostic** or **Clinical Events** logs, see page 18-2.

Copying Logs to Disk

1. Insert a 3.5” high-density disk into the disk drive of the Infinity CentralStation.

NOTE:

- You do not need to format the disk before copying logs.
- Both the Diagnostic ***and*** Clinical Events logs are copied during a copy request.

2. Access the log you wish to copy (page 18-9).
3. Click on **Copy Logs To Disk**. The Infinity CentralStation formats the disk automatically.

Logs are copied as individual files. During the copying process, the Infinity CentralStation is fully operational. However, the **Copy Logs To Disk** button remains ghosted until the process completes. If the operation fails, a status message displays and an advisory tone sounds.

Telemetry System Set Up

The following Biomed setup functions pertain exclusively to the Infinity M300. Before you can access these functions, the Infinity M300 option must be enabled (page 18-6).

Infinity M300 Set Up

Accessing the Infinity M300 Telemetry Setup Screens

1. Click on **Biomed** in the Main Screen menu bar.
2. Click on **Configure Telemetry...**.
3. Click on **Telemetry Devices** or **M300 Setup**.
4. Enter the Biomed password in the password popup.
5. Click on **Accept** in the popup.
   The selected screen displays.

You must use the Biomed password to access these screens (See Installation Instructions, included with this Instructions for Use in product packaging).

Infinity M300 Devices Screen

The **Telemetry Devices** screen permits the Biomed to configure up to 300 devices to use with the Infinity CentralStation.

1. Open the **Telemetry Devices** screen.
2. Click on the **New Device** button.
3. For each available device, enter the **IP address** in a row of the table.
4. Assign a unique **Telemetry ID** (4 character maximum).
5. Repeat steps 2 and 3 for each device.
6. When you have added all the devices, click on the **Accept**.

Once you assign the *Telemetry IDs*, those devices are available for selection from the **Telemetry ID** section of the **Admit** screen (page 9-3).

Biomed - Infinity M300 Setup Screen

NOTE: You can only configure the Infinity M300 **Alarm Paused** key, **STAFF ALERT** key, **Record** key, and speaker for an individual patient (page 18-15) if *Per Patient* is selected during setup.

Selection	Description	Settings	Default
Alarm Paused	Determines how the Infinity M300 **Alarm Paused** key can be used If you want to be able to individually set this function for each patient, you must select *Per Patient* (page 18-15). If you select *All Off* **Alarm Paused** key will be disabled for all Infinity M300 devices in the system.	• **All On** • **All Off** • **Per Patient**	**All Off**
Record	Determines how the Infinity M300 **Record** key can be used If you want to be able to individually set this function for each patient, you must select *Per Patient* (page 18-15). If you want to generate manual timed recordings when you press the Infinity M300 **Record** key, you must select *All Record* or *All Record/Store*.	• **All Record** • **All Off** • **All Record/Store** • **All Store** • **Per Patient**	**All Record**
Staff Alert	Determines how the Infinity M300 **STAFF ALERT** key can be used If you want to be able to individually set this function for each patient, you must select *Per Patient* (page 18-15). If you want to generate a STAFF ALERT alarm at the Infinity Central Station when you press the Infinity M300 **STAFF ALERT** key, you must select *All On*.	• **All On** • **All Off** • **Per Patient**	**All On**
Speaker **WARNING:** The Infinity M300 speaker is intended for use only in the patient vicinity. It is not intended for primary alarm annunciation. Use the Infinity CentralStation speaker for primary alarm annunciation.	Determines if the Infinity M300 speaker can be enabled **NOTE:** • If set to **ALL OFF**, Infinity M300 will not present the Volume screen and Volume will be forced to **OFF**. • Unless you select *Per Patient*, you cannot individually set this function for each patient (page 18-15).	• **All On** • **All Off** • **Per Patient**	**All Off**
M300 Volume	Determines volume of Infinity M300 audible alarm	• **OFF** • **10 - 100 %**	**OFF**

Selection	Description	Settings	Default
Display Shut Off Timer	Determines how long the Infinity M300 display remains on with no user activity	• **1 min** • **2 min** • **3 min** • **4 min** • **5 min**	**1 min**
ECG Notch Filter	Assigns Infinity M300 ECG Notch filter setting	• **50 Hz** • **60 Hz**	**60 Hz**
Régulation	Sets French Homologation mode	• **Par défaut** • **France**	**Par défaut**
• Click on **Accept** or on **Undo** to return to previous settings.			

Infinity Telemetry Set Up

Accessing the Infinity Telemetry Setup Screens

1. Click on **Biomed** in the Main Screen menu bar.
2. Click on **Configure Telemetry...**
3. Click on one of the following:

   Receiver Setup...

   Transmitter Setup...

   RF Diagnostics...
4. Enter the Biomed password in the password popup.
5. Click on **Accept** in the popup.

Once you access a Telemetry Setup screen with the Biomed password, you can open all other Telemetry Setup screens without having to re-enter the Biomed password.

Infinity Telemetry Receiver Setup

The **Receiver Setup** screen is further protected by a special password, which is only accessible to authorized service personnel. For detailed information on the various setup functions of this screen, please consult the accompanying service documentation.

To open the **Receiver Setup** screen see page 18-11.

Receiver Setup Screen Selections

Selection	Description
Country	Permits selection of country from option list (Password protected. Contact Dräger Service)
ECG Notch Filter	Displays list of possible **ECG Notch Filter** selections
Regulation	Permits selection of possible **Regulation** configurations
Receiver Details	
S/W Version	Displays Infinity CentralStation software version
ID Label	Displays receiver identification name assigned at installation
Ethernet Address	Displays telemetry receiver IP address configured during installation
Antenna System	Displays **Antenna System** type
Channel Spacing	Permits channel selections for selected country
Receiver Type	Permits selection of UHF or VHF
Frequency Range	Graphic display of **Channel Spacing** range
• Click on **Accept** to save changes or **Undo** to keep original settings.	

Configuring the Transmitter Buttons

In the **Transmitter Setup** screen, you can configure the transmitter **Recording** and the **Staff Alert** buttons. These settings determine whether or not a recording or a staff alert can be initiated from the transmitter.

1. Open the **Transmitter Setup** screen (page 18-12).

   The top of the screen contains the **Transmitter Record** and **Transmitter Staff Alert** buttons.

2. Click on the **Transmitter Record** or **Transmitter Staff Alert** button and scroll to a setting:

Transmitter Record and Staff Alert Button Selections

Setting	Description
All On	This selection activates the transmitter **Staff Alert** and **Recording** buttons for **all** telemetry channels. A timed recording is initiated if you press the recording button, and if you press the staff alert button, a serious alarm is generated at the Infinity CentralStation. Also, an alarm message appears in the patient's corresponding Main Screen and Bed View waveform areas.
All Off	The transmitter staff alert button and recording button are deactivated for **all** telemetry channels. You cannot generate any recordings or staff alert calls from any transmitter.
Per Patient	This setting allows you the greatest flexibility because the transmitter buttons can be enabled or disabled for each patient **individually** in the Transmitter Setup menu (page 3-5)

3. Click on **Accept** to save the setting or **Undo** button to keep the previous setting.

Radio Frequency Diagnostics

To open the **RF Diagnostics** screen see “Infinity Telemetry Set Up” on page 18-13.

Available Information on the RF Diagnostics Screen

The **RF Diagnostics** screen displays the frequency and I.D. for active Infinity Telemetry patients that currently have a transmitter assigned to the receiver channel. The screen also provides the information outlined in the following table. This information is updated every minute even as you are viewing it. Please consult the Service documentation for further information.

Information	Description	Possible Values
Channel	Lists the channels of the receiver reported by the receiver subsystem	1 to 4; 1 to 8; 1 to 12; 1 to 16; blank
Frequency	Lists the center operating frequencies (MgHz) of the receiver’s channels.	abc.defg; blank
I.D.	Lists the transmitter ID number for each channel as reported by the receiver subsystem. A blank means that no ID is reported (the transmitter signal is not being received).	1 to 255; blank
RSSI-dBm	Receiver’s signal strength indicator for each channel (averaged over 1 minute)	0 to -125 dBm; blank
1 min, 5 min, 10 min, 1 Hour, 24 Hours	Percentage of good ECG signal samples received over the specified interval	0 to 100%

A: Patient Preparation

This appendix provides information about patient preparation and electrode placement for telemetry monitoring.

General

Careful skin preparation and proper electrode placement ensure strong signals with minimal artifact. In case of a technical alarm (e.g., a detached lead), re-prep the patient according to the following recommendations.

WARNING! Place the Infinity M300 or Infinity Telemetry device to reduce the possibility of:

- the device falling on or injuring patient.

- any accessory cables accidentally entangling patient's neck.

Follow hospital protocol for preparing the patient's skin. To ensure a good quality signal, change electrodes every 24 to 48 hours (or in accordance with manufacturer's instructions). Electrodes may have to be changed more frequently under the following conditions:

- ECG signal degradation
- Excessive patient perspiration
- Patient skin irritation

A wide selection of reusable and single-use electrodes is available. Select the best electrode for the monitoring situation. Dräger recommends Ag/AgCl single-use electrodes. If you are using pre-gelled electrodes, verify that there is enough gel in the electrode gel-filled area. Never use disposable electrodes after their expiration date or when the gel has dried out.

Choose electrode sites in the configuration that will provide the best ECG based on the patient's underlying cardiac condition and the number of leads you wish to monitor. (P- and T-wave amplitudes should be no more than one third of the QRS amplitude.) Select flat, non-muscular sites to maximize electrode contact and minimize muscle artifact. Avoid joints or bony protrusions. Consider the following special conditions when selecting sites for electrode placement:

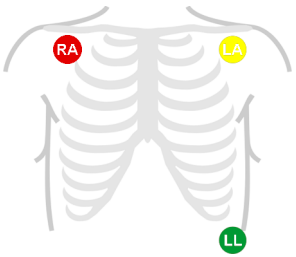
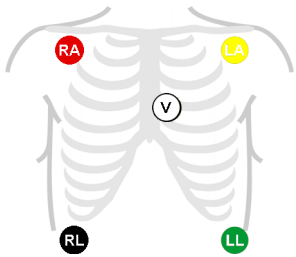
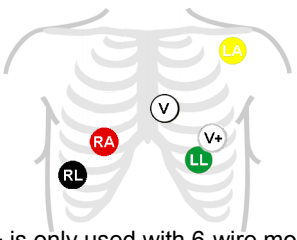
Surgery — Keep the electrodes as far from the surgical site as possible.

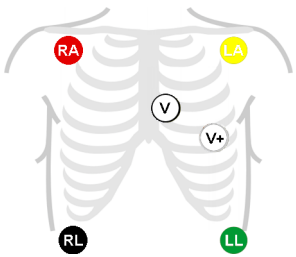
Burn Patients — Use sterile electrodes. Clean the equipment thoroughly. Follow hospital infection control procedures.

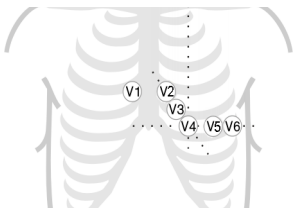
ECG Electrode Placement

WARNING! When placing electrodes, ensure all connecting wires are placed safely and cannot injure the patient. Serious injury can occur if the electrode wires are allowed to encircle the neck or extremities

The following illustrations show typical ECG electrode placement for 3-, 5-, and 6-wire lead sets:

<table>
<tr><th>3-Wire Standard</th><th>5-Wire Standard</th></tr>
<tr><td> 
</td><td> 
</td></tr>
<tr><th>Paced</th><th>6-Wire Standard</th></tr>
<tr><td> 

V+ is only used with 6-wire monitoring.
Dräger recommends that you do not use this modified placement for TruST monitoring.</td><td> 

Select 2 chest lead positions for V and V+ (page 8-14).</td></tr>
<tr><th colspan="2">Chest Lead Standard</th></tr>
<tr><td colspan="2"> 
</td></tr>
</table>

Lead Wire Color Codes

Lead wire color codes designated by the IEC and the AHA/AAMI appear in the table that follows.:

ECG Lead	IEC	AHA/AAMI (US)
LA	Yellow	Black
LL	Green	Red
RA	Red	White
RL	Black	Green
V	White	Brown
V+	Gray and White	Gray and Brown

Attaching the Pulse Oximeter

The accuracy of SpO_2 monitoring depends largely on the strength and quality of the SpO_2 signal.

If a finger is used as a monitoring site, remove any nail polish. Cut the patient's finger nails, if necessary, for better sensor placement. Use only approved sensors and apply them per the sensor manufacturer's recommendation (contact your local Dräger representative for a list of approved sensors). Ambient light can interfere with pulse oximetry measurements if the sensor is not properly attached, causing erratic measurement or missing values. Ensure proper sensor placement and cover the sensor with opaque material if interference due to ambient light is suspected.

CAUTION: *Read the instructions provided with the sensor for optimal application techniques and for safety information.*

1. Select the sensor type and size best suited for your patient.
2. If the sensor is reusable, clean it before and after each patient use.
3. Position the sensor correctly and attach it to your patient.
4. Connect the sensor to the patient cable.
5. Inspect the sensor application site frequently. If the sensor is too tight it may damage the tissue and impede blood flow. If the sensor is damaged, do not use it.

B: Technical Specifications

NOTE:

- Specifications are subject to change.
- The telemetry system complies with the Radio Equipment and Telecommunications Terminal Equipment Directive (1999/5/EC).

Technical Data

Infinity CentralStation	
Display Specifications	
Display Size	432 mm (17 in.), 533 mm (21 in.) diagonal, CRT or TFT
Resolution	1280 x 1024 pixels (native resolution)
User Controls	
Input Device Controls	PS/2-compatible keyboard and PS/2-compatible optical mouse included in country-specific kit. Optional Dräger Medical supplied touch screen is also supported.
Central Processing Unit (CPU)	
Processor	Intel® Xeon™ Processor minimum 3.20 GHz
Storage	• (1) minimum GB RAM, 1.44 Mb 3.5 in. floppy drive • (1) DVD/CDRW • (2) minimum 73 GB hard drives
Disk Array	SCSI Raid 1 in locked drive bay (available with locked option)
Software Updates	• 1.44 MB 3.5 inch floppy disk drive • CD-ROM
Connections	• 2 Asynchronous RS-232 serial ports • 2 GB LAN connections • 4 USB ports
Network Connectivity	• Infinity Network • Infinity TruST Telemetry Network
Video Output	Dual Head PCI 32M graphics board, 1280 x 1024 @ 75 Hz
Audio Output	Internal speaker standard. Dräger Medical supplied external speakers also required
Alarm Grades	Life-threatening, Serious, Advisory (Audible and visual indicators)
Number of patients supported per CPU	• 16 patients with single display • 32 patients with two displays
Electrical Specifications	
Power consumption	115V / 230V 4.0A/2.0A
Power Output	Up to 460W

Infinity CentralStation(continued)	
Environmental Requirements	
Cooling	Passive heatsink moved across 1 - 120 mm fan SCA drive array and power supply cooled by dedicated 80 mm fans
Operation Temperature	0 to 45°C (32 to 113°F)
Non-Operating Conditions	-20 to 50°C (-4 to 122°F)
Altitude	*Operating*: 3500 m (11000 feet) *Storage*: 10600 m (35000 feet)
Acoustic Noise	< 53 dBA
Physical Attributes	
Size (H x W x D)	426.7 x 218.4 x 508.0 mm (16.8 x 8.6 x 20.0 in.)
Weight	22.5 kg (50 lbs.)
Regulatory Standards	
Compliances	UL/CSA/CE Certification as required per Original Equipment Manufacturers (OEM). Infinity CentralStation is CE marked in accordance with the requirements of the 93/42/EEC Medical Device Directive.

Uninterruptible Power Supply (350VA, 120V, 220V)	
Connections	Infinity CentralStation, Infinity TruST Telemetry Receiver
Audio output	< 45 dB at 1 m (3 ft.)
Physical Specifications	
Size (H x W x D)	165 x 114 x 368 cm (6.5 x 4.5 x 14.5 in.)
Weight	11.3 kg (25 lbs.)
Electrical Specifications	
Inverter Waveform	Low distortion sine wave
Input voltage	115, 220, 230, 240 VAC ± 20% (nominal, user-selectable)
Input frequency	50/60 Hz ± 5%
Noise Rejection Isolation	With unit under power and an ANSI/IEEE C62.41 Cat. A pulse applied either normal or common mode at the input, the noise output voltage will be <10 normal mode and < 0.5V common mode in all 4 quadrants (CM-NM, NM-NM, CM-CM, NM-CM).

Uninterruptible Power Supply (350VA, 120V, 220V)(continued)	
Surge Voltage Withstand Capability	Tested under power to ANSI/IEEE C62.41 Cat. A & B (formerly IEEE 587-1980). Cat. A 6000V @ 200 amps, 0.5 usec risetime, 100 kHz decay, Cat. B 6000V @ 500 amps, 0.5 usec risetime, 100 kHz decay.
Battery charging time	3 to 8 hours
Backup time	6 to 20 minutes (half/full loaded)
Internal batteries	2 -12 volt user hot-swap batteries, recharge time 4 hours
Indicators	LEDs for Load level, voltage manager boost, voltage manager nominal, voltage manager buck, on battery, replace battery, overload
Environmental Requirements	
Operation Temperature	0 to 40^{o}C (32 to 104^{o}F)
Non-Operating Conditions	-20 to 60^{o}C (-4 to 140^{o}F)
Altitude	*Operating*: 3000 m (10000 feet) *Storage*: 3000 m (10000 feet)
Wall Mountable	Yes
Regulatory Standards	
Compliances	UL 1778, cUL 1778

Laser Printer
Black and white 1200x1200 dpi laser printers, 115V/220V sold separately. Contact Dräger Medical to obtain list of supported laser printers.

Strip Recorder
Infinity R50N Network Strip Recorder provides two-channel strip recordings of automatically captured arrhythmia or alarm events or manually initiated recordings.

Infinity Telemetry Systems

Infinity M300 System

Infinity M300 Programming Cable	
Connections	PC via 3m or optional 20m Serial cable
H x W X D	44.0 x 96.5 x 96.4 mm (1.7 x 3.8 x 3.8 in.)
Weight	450 g (1 lb.)
Method	Directly to PC and to SpO2 connector of Infinity M300

Infinity M300	
Physical Specifications	
Size, H x W x D	139.7 x 76.2 x 30.4 mm (5.6 x 3 x 1.2 in)
Weight	276.4 g (9.75 oz) with battery
Cooling	Convection
Disposal	All materials must be disposed of or recycled properly and in accordance with local regulations. There are no known special disposal requirements for any accessories.
Connections	ECG, SpO2, Programming Cable
Environmental Specifications	
Atmospheric Pressure	Operating: 647 to 1060 hPa Storage: 500 to 1060 hPa
Temperature	Operating: 0 to 40° C (32 to 104 °F) Storage: -20 to 60° C (-4 to 140 °F)
Humidity (non condensing)	Operating: 10% to 85% Storage: 10% to 85%
Shock IEC 60068-2-27	50 g half-sine waveform, 11 mS duration, 3 shocks in each +/- directions/axis, 18 total shocks, 3 mutually perpendicular axes
Frequency Response	0.5 - 40 Hz: ± 3 dB
Sinusoidal Vibration IEC 68-2-6	5-10 Hz @ 0.098 DA, 100-500 Hz @ 2 G 10 sweep cycles/axis, 3 axes, 1 octave / minute
Random Vibration IEC 60068-2-36	Reproducibility Medium ASD 10 to 20 Hz: 0.05 g^2 /Hz, -3dB/Octave ASD 20 to 150 Hz: 0.05 g^2 /Hz, -3dB/Octave Duration: 30 min

Infinity M300(continued)	
Bump IEC60068-2-29	Peak acceleration: 15 g Pulse duration: 6 ms Number of bumps: 1000 Direction: Vertical (normal operating position)
Free Fall IEC 60068-2-32, Procedure 1	Height of fall: 1 m Number of falls: 1 on each of six surfaces
Drop	Per IEC68-2-31, Packaged drop- 30"
Water Resistance	Per EN 60529 rating IPX7
Electrical Characteristics	
Power Source	Rechargeable lithium ion battery
Mode of operation	Continuous
Typical Battery Run Time ECG only	18 hours
User Interface	
User Interface	6 fixed keys: alarm pause, view screen, staff alert, record/ mark event, up/down screen scroll, Audio annunciator, LCD Display
Alarm Indicator	LED Battery Charging Indicator, Visual Alarm Banners on LCD, Audible alarms via speaker
Display	
Type	Color Liquid Crystal Display (LCD)
Communications	
Network	Direct Sequence Spread Spectrum (802.11b)
Operating Frequencies	ISM-2.4: 2400MHz to 2483.5MHz
Arrhythmia	
Leads Analyzed	Any user-selected, non-derived single lead or Lead II and V
Detected Events/Rhythms	Asystole, Ventricular Fibrillation, Ventricular Tachycardia, Sinus Bradycardia, Ventricular Run, Accelerated Idioventricular Rhythm, Supraventricular Tachycardia, Ventricular Couplet, Ventricular Bigeminy, Sinus Tachycardia, Pause, Artifact, PVC/min

Infinity M300(continued)	
ECG	
Available leads- Adult/Pediatric	I, II, III, aVL, aVR, aVF, V, V+V1, V2, V3, V4, V5, V6, dV1, dV2, dV3, dV4, dV5, dV6 (dVx leads using TruST 12-lead algorithm K030738)
Measurement Range	15 to 300 bpm
Accuracy	± 2 beats/minute or ± 1%, whichever is greater
Degree of protection against electrical shock	Type CF
Defibrillation Protection	</= 360 Joules
Event Storage	
Automatic	Alarm violation or arrhythmia trigger
Manual	"Recording" key activation
Central Monitor WorkStation and Input Controls	Draeger Medical Systems Infinity CentralStation Keyboard, mouse, touchscreen

Infinity M300(continued)	
ST Segment Analysis (Adult/Pediatric)	
Available Leads for display on patient worn device	Choice of any ECG lead being monitored
Isoelectric Point	Adjustment range: Start of QRS complex to fiducial point Default: QRS onset - 28msec
ST Measurement Point	Adjustment range: Fiducial point to end of QRS complex Default: QRS offset + 80msec
ST Complex Length	900 msec (-300 to +600 msec from fiducial point)
Update Interval	15 secs ±1, 1 normal beat required
ST Level Alarm Adjustment Range	-15.0 to 15.0 mm, -1.5 to 1.5 mV
ST Accuracy	±0.1 mm (±0.01 mV)
ST Measurement Range	-15.0 to 15.0 mm, -1.5 to 1.5 mV
ST Measurement Resolution	±0.1 mm (±0.01 mV)
Sampling Rate for Averaged ECG	250 samples/s
Pulse Oximetry (optional)	
Parameter Display	Percentage of functional (oxygen-saturated) hemoglobin Saturation (%SpO2), pulse rate
Measurement method	Absorption-spectrophotometry
Measurement range	SpO2: 1 - 100% Pulse rate: 30-250 bpm
Calibration range	70-100%
Display range	1-100% (SpO2) 30-250 bpm (Pulse)
Display update period	2 seconds nominal
Maximum hold from previous update	30 seconds (in the event of artifact or other error)

Infinity M300(continued)	
Measurement accuracy, Adult and pediatric Mode[1]:	SpO2: 0 to 69% not specified 70 to 100% sensor-specific as follows: *Nellcor*: D-25, D-20, I-20, N-25, MAX-A, MAX-AL, MAX-P, MAX-N, MAX-I, MAX-R ±2 *Nellcor*: DS100A ±3 *Masimo*: LNOP ADLT, LNOP-YI ±2 *Masimo*: LNOP-DCI, LNOP-DCIP, NR125 ±2 LNOP-EAR ±3.5 Pulse Rate: ±3 beats/min or ±3% (whichever is greater)
[1] SpO2 accuracies are expressed as ± "X" digits between indicated saturation levels. Accuracy of the SpO2measurement is specified 1 SD (standard deviation).	
Nominal wavelength:	Nellcor: Red: 660 nm IR: 910 nm Masimo: Red: 660 nm IR: 905 nm
Power:	Nellcor: Red: 3 mW(max.) IR: 4 mW(max.) Masimo: Red: 0.9 mW(max.) IR: 0.9 mW(max.) LED drive is current limited by hardware mechanisms
QRS Detection	
Amplitude	0.5 to 5 mV
Duration - Adult/Pediatric	70 to 120 msec
Pacer Detection Leads (Adult/Pediatric)	I, II or III
Pacer Detection Amplitude	±2 to ±900 mV
Pacer Detection Width	0.1 to 2.0 msec
Trends	
Trended Telemetry Parameters	HR, ST, PVC/min, % paced, SpO2, PLS, STI, STII, STIII, STaVR, STaVL, STaVF, STV1 to STV6, STdV1 to STdV6, STVM, and STCVM

Infinity M300(continued)	
Storage Time	72 Hours
Resolution	1 minute interval

Infinity M300 Bedside Charger	
Connections	Infinity M300
Physical Attributes	
Dimensions	Length: 99.06 mm (3.9 in) Height: 162.56 mm (6.4 in) Depth: 45.72 mm (1.8in)
Weight	224.0 g (7.9 oz)
Cooling	Convection
Disposal	All materials must be disposed of or recycled properly and in accordance with local regulations. There are no known special disposal requirements for any accessories.
Electrical Specifications	
Input Voltage	115, 220, 230, 240 VAC ± 20% (nominal, user selectable)
Input frequency (Hz)	50/60 Hz ±5%
Protection Class	From specified Class 1 power supply
Mode of Operation	Continuous
Environmental Requirements	
Atmospheric Pressure	Operating: 647 hPa to 1060 hPa Storage: 500 hPa to 1060 hPa
Temperature	Operating: 0 to 40° C (32 to 104 °F) Storage: -20 to 60° C (-04 to 140 °F)
Humidity (non condensing)	Operating: 10% to 85% Storage: 10% to 85%
Shock IEC 68-2-27	• 50 g half-sine waveform, 11 mS duration, • 3 shocks in each +/- directions/axis, 18 total shocks, • 3 mutually perpendicular axes
Sinusoidal Vibration IEC 68-2-6	• 5-10 Hz @ 0.098 DA, 100-500 Hz @ 2 G • 10 sweep cycles/axis, 3 axes, 1 octave / minute

Infinity M300 Bedside Charger(continued)	
Random Vibration IEC 60068-2-36	• Reproducibility Medium • ASD 10 to 20 Hz: 0.05 g2 /Hz, -3dB/Octave • ASD 20 to 150 Hz: 0.05 g2 /Hz, -3dB/Octave • Total acceleration: 1.6g (rms) • Duration/axis/mounting: 30 min
Bump IEC60068-2-29	• Peak acceleration: 15 g • Pulse duration: 6 ms • Number of bumps: 1000 • Direction: Vertical (normal operating position)
Free Fall IEC 60068-2-32, Procedure 1	• Height of fall: 1 m • Number of falls: 1 on each of six surfaces
Drop	Per IEC68-2-31, Packaged drop- 30"
Water Resistance	IPX4 (cradle side that connects to patient)
Standards	
Compliances	IEC 60601-1 and IEC 60601-1-2

Infinity M300 Central Charger	
Connections	Infinity M300 (supports 10 devices concurrently)
Physical Attributes	
Dimensions	Length: 520.7 mm (20.5 in) Height: 215.9 mm (8.5 in) Depth: 190.5 mm (7.5 in)
Weight	6.5 kg (14.4 lbs)
Cooling	Heat sink and fan
Disposal	All materials must be disposed of or recycled properly and in accordance with local regulations. There are no known special disposal requirements for any accessories.
Electrical Specifications	
Input Voltage	115, 220, 230, 240 VAC ± 20% (nominal, user selectable)
Input frequency (Hz)	50/60 Hz ±5%
Protection Class	From specified Class 1 power supply
Mode of Operation	Continuous

Infinity M300 Central Charger(continued)	
Power Output	Provides power to Infinity M300 via magnetic coupling
Environmental Requirements	
Atmospheric Pressure	Operating: 647 to 1060 hPa Storage: 500 to 1060 hPa
Temperature	Operating: 0 to +40 ° C (32 to 104 °F) Storage: -30 to +70° C (-22 to 158 °F)
Humidity (non condensing)	Operating: 10 to 85% Storage: 10% to 85%
Shock IEC 68-2-27	• 50 g half-sine waveform, 11 mS duration, • 3 shocks in each +/- directions/axis, 18 total shocks, • 3 mutually perpendicular axes
Sinusoidal Vibration IEC 68-2-6	• 5-10 Hz @ 0.098 DA, 100-500 Hz @ 2 G • 10 sweep cycles/axis, 3 axes, 1 octave / minute
Random Vibration IEC 60068-2-36	• Reproducibility Medium • ASD 10 to 20 Hz: 0.05 g2 /Hz, -3dB/Octave • ASD 20 to 150 Hz: 0.05 g2 /Hz, -3dB/Octave • Total acceleration: 1.6g (rms) • Duration/axis/mounting: 30 min
Bump IEC60068-2-29	• Peak acceleration: 15 g • Pulse duration: 6 ms • Number of bumps: 1000 • Direction: Vertical (normal operating position)
Free Fall IEC 60068-2-32, Procedure 1	• Height of fall: 1 m • Number of falls: 1 on each of six surfaces
Drop	Per IEC68-2-31, Packaged drop- 30"
Water Resistance	IPX1 - Protected against harmful effects of dripping water.
Standards	
Compliances	IEC 60601-1 and IEC 60601-1-2

Infinity TruST Telemetry System

TruST Telemetry Receiver	
Network Connectivity	Infinity Network; Infinity TruST Telemetry Network
Antenna Type	Dual conversion super heterodyne
Modulation	Gaussian Minimum Shift Keying (GMSK)
Software Update	1.44 MB 3.5 inch floppy disk drive
Channels	4 channels per card, maximum 16 channels
Frequencies	UHF 400 - 460 MHz., UHF 608 - 614 MHz., VHF 174-216 MHz
Channel Spacing	Varies by country, 25, 40 or 50 kHz
Electrical Specifications	
Power Consumption	2A@ 100 VAC, 1A @ 240 VAC
Input Voltage	100/120/220/230-240 VAC selectable +/- 10%
Mains Frequency	50/60 Hz. (nominal)
Indicators	LED indicator for power
Environmental Conditions	
Cooling	Fan circulation
Operation Temperature	10 to 40° C (50 to 104 °F)
Non-Operating Conditions	-20 to 60° C (-4 to 140 °F)
Physical Attributes	
Chassis Color	White
Weight	16 kg (35 lbs)
H x W x D	191 x 432 x 508 mm (7.5 x 17.0 x 20.0 in.)
Regulatory/Standards Compliance	
Compliances	• EN 60601-1 Medical electrical equipment Part 1: General requirements for safety. • EN 60601-1-2: Medical electrical equipment, collateral standard: electromagnetic compatibility • UL 544 second addition (1991)

TruST Telemetry Transmitter	
Lead Type	3-wire, 5-wire, 6-wire
Indicators	LEDs indicating lead off and low battery
Leads-off Sensors	One for each lead: RA, LA, LL, V, V+
Lead-off Threshold	12 MΩ, ± 25% for RA, LA, LL, V, V+ 2.7 MΩ, ± 25% for RL
Common Mode Rejection	Meets CMRR test specification in AAMI EC 13-2002 4.2.9.10
Controls	Staff alert, timed and continuous recording start, self-test
Pacemaker Detection	0.1 to 2 ms, 2.5 to 700 mV (positive or negative) Independent detectors for Lead I and II
Defibrillation Protection	Will withstand 360 joules
Electrical Specifications	
Protection against electrical shock	Type B
Electrosurgery and Cautery	Not intended for use during ESU
Battery	• 9 V alkaline: 2 days • 9 V lithium: 4 days
Environmental Specifications	
Operation Temperature	10 to 40° C (50 to 104 °F)
Non-Operating Conditions	-25 to 60° C (-13 to 140 °F)
RF Power Output	1 MW, -3 to + 4 dBm
Frequency Response	0.5 - 40 Hz: ± 3 dB
Water Resistance	Electronics protected from damage due to accidental immersion in up to 1 m of water for 30 minutes. Meets EN 60529 rating IPX7.
Drop and Free fall	Withstands 20 drops from 1.5 m onto a tiled concrete surface with no degradation of performance

TruST Telemetry Transmitter(continued)	
Chemical Resistance	Resistance tested for isopropyl alcohol 70%, sodium hypochlorite (bleach) 2.5% and the following commercial disinfectants: Buraton 10F 1%, Cetylcide-G® Concentrate, Diluent Concentrate Cidex Plus™ 28 Day Solution, Cidex OPA Solution, Cidex OPA Solution High Level Disinfectant, Cidex™ Activated Dialdehyde Solution, Compliance, Enzol (Cidezyme), Incidin® Plus 1%, Incidin® Plus 2%, Lysoformin 3000 1%, Metricide® 28 Long-Life Activated, Dialdehyde Solution, Sporicidin Sterilizing and Disinfecting Solution
Connections	• ECG Analog cable for bedside display of Lead II scaled to 1 mV ± 15% to transmitter's ECG input leads • Vital Connection cable between Infinity CentralStation and Infinity monitor X8 port for data acquisition of SpO2 and/or NIBP • Infinity Telemetry Transmitter Programming Port for tuning each transmitter electronically over its frequency range; • MicrO2+ pulse oximeter.
Physical Specifications	
Size, H x W x D	116 x 65 x 25 mm (4.56 x 2.56 x 1 in.)
Weight	160 grams (5.7 oz.) with lithium battery

Telemetry Vital Signs Measuring Capabilities	
ECG	
Available leads	3-wire: I, II, III 5-wire: I, II, III, aVR, aVF, aVL, V 6-wire: I, II, III, aVR, aVF, aVL, V, V+ 6-wire (Infinity TruST 12-lead): V2, V5, dV1, dV3, dV4, dV6 (Default) For TruST 12-lead, any other combination of V1-V6 can be selected; the chest lead selection determines the constructed leads (dV1 - dV6).
Measuring range	15 - 300 bpm
Accuracy	± 5 bpm or ± 5% of rate (whichever is greater)
QRS detection range amplitude	*Amplitude*: 0.5 to 5.0 mV *Duration*: 40 to 120 ms
1 mV calibration pulse	1 mV ± 5%, all leads

Telemetry Vital Signs Measuring Capabilities(continued)	
Arrhythmia Processing	
Algorithm	ACE (Arrhythmia Classification Expert)
Leads analyzed	Any two user-selected ECG leads (simultaneously), or any one user-selected ECG lead
Detected events/rhythms	Asystole, ventricular fibrillation, ventricular tachycardia, sinus bradycardia, pause, ventricular run, sinus tachycardia, accelerated idioventricular rhythm, couplet, bigeminy, paced artifact, PVC/min,% paced, SVT
Functions	User-selectable functions: alarm on/off, record on/off, store on/off, assignment of alarm grade for each event category.
Trends	
Parameters	HR,% paced, PVC/min ST (I, II, III, aVL, aVR, V, V+, V1-V6, dV1-dV6), STCM, STVCM, SpO_2, pulse rate (PLS)
Storage time	72 hours
Trend Graphs	1, 2, 4, 8, 12, 24 hours (72 hours max)
Trend Tables	1, 5, 15, 30, 60 minutes
ST Segment Analysis	
Leads analyzed	Simultaneous analysis of leads I, II, III, aVL, aVF, aVR, V, V+, V1-V6, dV1-dV6
Sampling rate for averaged ECG	250 samples
Resolution	± 10 µV
Alarm handling	Positive and negative S-T deviations
Isoelectric point	Default is set at 28 ms before QRS onset; user-selectable in 4 ms increments between QRS peak to beginning of averaged ECG segment.
ST measurements	The value is updated every 15 seconds from an average of all normal, non-paced beats.
Trends	Both graphical and tabular format for each ECG lead
General Display Capabilities	
Telemetry channels	Up to 16
Display screens	1 or 2
Screen formats	Refer to Infinity CentralStation Instructions for Use.
Sweep Speeds	25 or 50 mm/s
Channel amplitudes	0.25; 0.5; 1; 2; 4; 8 mV/cm
Display mode	Fixed Waveform (erase bar) mode
X-Y resolution	1024 x 1280 pixels with ECG waveform enhancements

Telemetry Vital Signs Measuring Capabilities(continued)	
Recordings	
Types	R50 producing 50 mm wide strips with thermal array print head Laser Printer
Number	2

Transmitter Programming Port	
Used to tune transmitters to selected frequency and to select ECG wire mode	
Connections	Infinity CentralStation
H x W X D	44.0 x 96.5 x 96.4 mm (1.7 x 3.8 x 3.8 in.)
Weight	450 g (1 lb.)

Infinity Telemetry ECG Analog Output Cable	
Used to tune transmitters to selected frequency and to select ECG wire mode	
Connections	Infinity MultiMed Pod
H x W X D	44.0 x 96.5 x 96.4 mm (1.7 x 3.8 x 3.8 in.)
Weight	450 g (1 lb.)

Electromagnetic Compatibility

The separation distances are written with regard to the Infinity CentralStation with Infinity Telemetry, TruST Transmitters and Infinity M300. The numbers provided will not guarantee faultless operation but should provide reasonable assurance of such. This information may not be applicable to other medical electrical equipment, and older equipment may be particularly susceptible to interference.

General Notes

Medical electrical equipment needs special precautions regarding electromagnetic compatibility (EMC) and needs to be installed and put into service according to the EMC information provided in this manual.

Portable and mobile radio frequency (RF) communications equipment can affect medical electrical equipment. The TruST telemetry receiver may be sensitive to RF interference and could possibly be interfered with by other equipment even if the equipment complies with CISPR11.

Cables and accessories not specified within the instructions for use are not authorized. Using other cables and/or accessories may adversely impact safety, performance and electromagnetic compatibility (increased emission and decreased immunity).

The equipment should not be used adjacent to or stacked with other equipment; if adjacent or stacked use is inevitable, the equipment should be observed to verify normal operation in the configuration in which it will be used.

When using wireless networking, be aware that the system operates at 2.4 GHz range. Other equipment, even if compliant with CISPR emission requirements, could interfere with reception of wireless data. When selecting new wireless systems (e.g. cell phones, pager systems, cordless phones etc.) for use in installations where wireless networking is used, care should always be used to insure that operating frequencies are compatible. For example, selecting cordless phones that operate at 2.4 GHz will likely cause difficulty with the phones and networking components.

NOTE: Detailed radio frequency characteristics: 2412-2472 MHZ, Direct-sequence spread spectrum (DSSS) IEEE 802.11b compatible, limited to 100 mW. Applicable to both access points and client adaptors. When used with 802.15.1 wireless, the device will transmit with the following characteristics: 2400-2485 MHz, Frequency Hopping Spread Spectrum (FHSS), limited to 2.5 mW. See the documentation that accompanies the wireless products for further details.

Low level signals such as ECG are potentially susceptible to interference from electromagnetic energy. While the equipment meets the testing described below, it is not a guarantee of perfect operation, the ‘quieter’ the electrical environment the better. In general, increasing the distance between electrical devices decreases the likelihood of interference.

NOTE: The Infinity CentralStation with Infinity Telemetry, TruST transmitters and Infinity M300 are intended for use in the electromagnetic environments specified below. The user of this equipment should assure that is used in such an environment.

Electromagnetic Emissions		
Emissions	**Compliance according to...**	**Electromagnetic environment**
RF emissions (CISPR 11) Infinity CentralStation Telemetry Receiver and Infinity M300	Group 1	The Infinity CentralStation and receiver use RF energy only for internal function. Therefore, their RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.*
RF emissions (CISPR 11) Transmitter	Group 2	The TruST Telemetry Transmitter must emit electromagnetic energy in order to perform its intended function. Nearby electronic equipment may be affected.
CISPR Emissions Classification	Class B	The equipment is suitable for use in all establishments including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions (IEC 61000-3-2)	Class A	
Voltage fluctuations / flicker (IEC 61000-3-3)	Complies	
*Note that when used with the wireless options, the Infinity M300 emits electromagnetic energy in order to communicate with the Infinity Network. Nearby electronic equipment may be affected. Radio frequency characteristics are specified above. See the documentation that accompanies the wireless products for further details.		

Electromagnetic Immunity			
Immunity against...	**IEC 60601-1-2 test level**	**Compliance level (of this device)**	**Electromagnetic environment**
Electrostatic discharge, ESD (IEC 61000-4-2)	*Contact discharge:* ± *6 kV*	± *6 kV*	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be kept at levels to reduce electrostatic charge to suitable levels.
	Air discharge: ± *8 kV*	± *8 kV*	
Electrical fast transients / bursts (IEC 61000-4-4)	*Power supply lines:* ± *2 kV*	± *2 kV*	Mains power quality should be that of a typical commercial or hospital environment.
	Longer input / output lines: ± *1 kV*	± *1 kV*	
Surges on AC mains lines (IEC 61000-4-5)	*Common mode:* ± *2 kV*	± *2 kV*	Mains power quality should be that of a typical commercial or hospital environment.
	Differential mode: ± *1 kV*	± *1 kV*	

Electromagnetic Immunity			
Immunity against...	**IEC 60601-1-2 test level**	**Compliance level (of this device)**	**Electromagnetic environment**
Power frequency magnetic field 50/60 Hz (IEC 61000-4-8)	*3 A/m*	*3 A/m*	Equipment which emits high levels of power line magnetic fields (in excess of 3A/m) should be kept at a distance to reduce the likelihood of interference.
Voltage dips and short interruptions on AC mains input lines (IEC 61000-4-11)	*Dip >95%, 0.5 periods*	*>95%, 0.5 periods*	Mains power should be that of a typical commercial or hospital environment. If user requires continued operation during power mains interruptions insure that batteries are installed and charged. Insure that battery life exceeds longest anticipated power outages or provide and additional uninterruptible power source.
	Dip 60%, 5 periods	*60%, 5 periods*	
	Dip 30%, 25 periods	*30%, 25 periods*	
	Dip >95%, 5 seconds	*>95%, 5 seconds*	
Conducted RF RF coupled into lines (IEC 61000-4-6)	*150 kHz – 80 MHz:*	*3 V/m*	Portable and mobile RF communications equipment should be used no closer to any part of the, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter as below. Recommended separation distance: d=1.2/V1]√P d=1.2/√P 80 MHz to 800MHz d=2.3√P 800 MHz to 2.5 GHz *where 'P' is the maximum output power rating of the transmitter in watts according to the transmitter manufacturer and 'd' is the recommended separation distance in metres.* Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[1], should be less than the compliance level in each frequency range[2]. Interference may occur in the vicinity of equipment marked with the wireless symbol:
Radiated RF (IEC 61000-4-3)	*80 MHz – 2.5 GHz*	*3 V/m*	

Electromagnetic Immunity			
Immunity against...	**IEC 60601-1-2 test level**	**Compliance level (of this device)**	**Electromagnetic environment**

[1]Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast, and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the equipment is used exceeds the applicable RF compliance level above, the equipment should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the equipment.

[2]If the frequency range is 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

Recommended separation distances between portable and mobile RF communications equipment and the equipment

Rated maximum output power of Transmitter (watts)	**Separation distance according to frequency of transmitter (meters)**		
	150 kHz to 80 MHz d=1.2/V1]√P	**80 MHz to 800MHz d=1.2/V1]√P**	**800 MHz to 2.5 GHz d=2.3√P**
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed, the recommended separation distance '*d' (*in meters) can be estimated using the equation applicable to the frequency of the transmitter, where '*P'* is the maximum output power rating of the transmitter (in watts) according to the transmitter manufacturer.

NOTE:

- At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.
- These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects, and people.

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C: Cleaning

CAUTION! *Do not sterilize any components.*

Cleaning the Infinity CentralStation

CAUTION!

- *Do not immerse the CPU or its peripherals.*
- *Do not pour or spray cleaning solution directly on equipment surfaces.*
- *Do not allow fluids to contact electrical connectors or drip into ventilation openings.*

During normal use the display, CPU, accessories, and peripherals may become soiled. Clean these components according to the original manufacturer's *Instructions For Use* or hospital protocol for computer equipment and peripherals.

Cleaning and Disinfecting Infinity Telemetry and Infinity M300

CAUTION!

- *Do not use disinfectants other than those recommended by Dräger. The use of non-approved disinfectants can damage the device.*
- *Do not use disinfectants containing phenol. Do not use strong aromatic ketone, ether, or ester solvents, or sharp tools and abrasives. These will damage the device.*
- *Do not gas sterilize, steam autoclave, immerse, or rinse the device in fluids. If you accidentally spill liquid on the device, remove the battery and contact the Hospital Biomedical Engineering Dept. regarding the continued safety of the unit before placing it back in operation.*

1. Clean the device with gauze moistened in soapy water.
2. Thoroughly dry with a lint-free cloth.
3. Disinfect the device with gauze moistened in a cleaning agent.
4. Thoroughly dry with a lint-free cloth.

Recommended Cleaning Agents

Dräger recommends the following cleaning agents for Infinity Telemetry and Infinity M300.

- Diluted isopropyl alcohol
- Sodium hypochlorite 2.5%
- Green tinctured soap

Patient Cables

- Clean the patient cables with a gauze pad moistened with a soap solution.
- Dry thoroughly with a lint-free cloth.
- To disinfect patient cables, wipe the cables with a gauze moistened with diluted alcohol.
- Dry thoroughly with a lint-free cloth.

Reusable ECG Electrodes

- Clean grabber-wire clips regularly with a toothbrush.
- Remove any gel residue from the electrode by brushing it off under running water.
- Clean the electrodes with a gauze moistened with a soap solution.
- Dry thoroughly with a lint-free cloth.
- Disinfect the electrodes with a gauze moistened with diluted alcohol.
- Dry thoroughly with a lint-free cloth.

Reusable SpO_2 Sensor

See the cleaning instructions and recommendations provided with the sensor.

Cleaning the MicrO2/MicrO2+® Oximeter

Oximeter

1. Turn the oximeter off.
2. Clean the oximeter with gauze moistened in soapy water.
3. Thoroughly dry with a lint-free cloth.
4. Disinfect the oximeter with gauze moistened in diluted isopropyl alcohol (70%), or sodium hypochlorite (2.5%).
5. Thoroughly dry with a lint-free cloth.

Reusable Sensor

1. Unplug the sensor from the oximeter.

NOTE: Disposable sensors are intended for single-use only and should not be reprocessed.

2. Clean reusable sensors according to the instructions supplied with the sensor

CAUTION!

- *Do not use disinfectants containing phenol. Do not use strong aromatic ketone, ether, or ester solvents, or sharp tools and abrasives. These will damage the oximeter.*
- *Do not use disinfectants other than those recommended. The use of non-approved disinfectants can damage the oximeter.*
- *Do not gas sterilize, steam autoclave, immerse, or rinse the oximeter and its reusable sensor in fluids. If you accidentally spill liquid on the device, remove the battery and contact the Hospital Biomedical Engineering Dept. regarding the continued safety of the unit before placing it back in operation.*

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These Instructions for Use only apply to
Infinity CentralStation
with Infinity Telemetry System
and with Infinity M300
VF8
with the Serial No.:
If no Serial No. has been filled in by Dräger, these Instructions for Use are provided for general information only and are not intended for use with any specific machine or device. This document is provided for customer information only, and will not be updated or exchanged without customer request.

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for medical devices

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