

V Series

Quick Reference Guide



mindray

The V-Series Quick Reference Guide is not intended as a replacement to the Operating Instructions. Prior to operating equipment, the user must be familiar with the Operating Instructions Manual contents. This document is a guideline only to be used as an aid to comprehensive Inservice Training.

.....	6
.....	7
.....	8
.....	9
Enter Demographics	9
Adjust Patient Size	9
Discharge A Patient	10
.....	10
Enter Standby	10
Resume Monitoring	10
.....	11
.....	11
Real-Time Waveforms	11
Adjust Print Location	12
Adjust Waveforms Printing	12
.....	13
Adjust ECG Lead	13
Enable Pacemaker Detection	13
Adjust Arrhythmia and Beat Classification Leads	14
Adjust QRS Threshold	14
Initiate Relearn	15
Initiate QT Monitoring	15
Enable QTC Limit	15
Initiate ST Analysis	16
.....	16
Enable 12 Lead ECG	16
View 12 Lead ECG	16
Print 12 Lead ECG	16

- 17
- Initiate A Non-Invasive Blood Pressure Measurement (NIBP)..... 17
- Set A Non-Invasive Blood Pressure Measurement Interval 18
- 19
- Adjust Invasive Blood Pressure Label 19
- Zero Invasive Blood Pressure 19
- Overlapping Invasive Blood Pressure Waveforms. 20
- 20
- Adjust Temperature Label 20
- Adjust Temperature Units 21
- 21
- Adjust Alarm Limits 21
- Adjust Alarm Responses 22
- Adjust Arrhythmia Alarms..... 23
- Adjust Arrhythmia Alarm Responses..... 24
- Disable Non-Lethal Arrhythmias..... 24
- 25
- (Version 2.5 or greater) 25
- (Version 2.5 or greater) 25
- (Version 2.4 or earlier) 26
- (Version 2.4 or earlier) 26
- 26
- 27
- Initiate A Cardiac Output Measurement 27
- Initiate Pulmonary Artery Wedge Pressure (PAWP) 28
- Initiate Hemodynamic Calculations..... 29

(cont'd)

.....	29
Display Selection	29
Adjust Display Selection	29
.....	30
List Trends	30
Alarm Events	31
Full Disclosure	31
.....	32
Beat Tone	32
.....	33
.....	33
..... ()	33
.....	34



V Series (2.5 Software)	
Strip	Initiates a single strip or a continuous strip print request
Capture Event	Saves an event to the event database
History	Accesses the Trends, Events, and Full Disclosure dialogs
Audio Pause/O	Silences all current and future alarms for the configured time period. If the configured period is set to 10 minutes, the button reads, 10 min
Alarm Acknowledge/Reset	Silences the current alarms for the configured time period. If the configured period is set to 10 minutes, the button reads 10 min
Normal Screen	Closes all dialogs and returns to the Main Screen



V Series (2.4 Software)	
Strip	Initiates a single strip or a continuous strip print request
Capture Event	Saves an event to the event database
History	Accesses the Trends, Events, and Full Disclosure dialogs
Silence All	Silences all current and future alarms for the configured time period
Silence	Silences the current alarms for the configured time period
Normal Screen	Closes all dialogs and returns to the Main Screen

V Series (Configurable)	
Start/Stop NIBP	Starts/Stops a NIBP measurement in progress – If there is no measurement in progress, the button reads, Start NIBP If there is a measurement progress, the button reads, Stop NIBP
NIBP Stat	Starts an immediate NIBP measurement
Zero All IBP	Sets the current pressure for all invasive pressure channels to zero
View All ECG	Displays all the ECG waveforms available based on the lead set currently in use
Lead/Size	Accesses the Lead/Size dialog used to change the ECG waveform height or wave gain
Standby	Places the monitor in the standby mode

Continuous/Abort	Begins/ends strips from printing to the thermal printer
Print 12 Lead	Prints a 12 Lead Report to the default printer
Print Setup	Accesses the Print Setup dialog where the clinician can configure which waveforms to print and where to print them
Print Queue	Accesses the Print Queue dialog

Patient Info	Accesses the Patient Info dialog
Audio Levels	Accesses the Audio Levels dialog
Display	Accesses the Display Setup dialog
Parameters	Accesses the Parameter dialog
System	Accesses the System Setup dialog

Calculators	Accesses the Calculators dialog
Alarm Watch	Accesses the Alarm Watch dialog
Remote View	Accesses the Remote View dialog
System Information	Accesses the System Information dialog
VAccess	Accesses the VAccess dialog*

<p>These buttons are only available when using the Adult or Pediatric patient size</p>	
C.O. Run	Accesses the Cardiac Output Runs dialog
PAWP	Accesses the PAWP dialog
PA Insertion	Accesses the PA Insertion dialog.
Hemo Calculations	Accesses the Hemodynamic Calculations dialog
12 Lead	Accesses the 12 Lead dialog*

Limits	Accesses the Alarm Limits dialog
Responses	Accesses the Responses dialog
Arrhythmia	Accesses the Arrhythmia Alarm dialog
Alarm Setup	Accesses the Alarm Setup dialog

*Only if enabled

A I E , I F

Enter Patient Information

The Patient Info menu allows the clinician to enter and modify patient demographics.

To enter demographics on V12 or V21 bedside monitor:

- Select **Enter Patient Information** (**Enter Patient Information** tab) or select **Enter Patient Information** (**Enter Patient Information** tab) to enter **Enter Patient Information** tab
- Select applicable button to open field and enter patient information using on screen keyboard
- Select **Accept** to accept information on patient name and ID
- Select **Accept** to accept information on height, weight, DOB, and age
- Select **Save** to save settings and return to the main screen

Entering demographic information on the Panorama Central Station or WorkStation automatically enters it on the V12 or V21 bedside monitor. Entering demographic information on the V12 or V21 bedside monitor automatically enters it on the Panorama Central Station, ViewStation, and WorkStation.

Adjust Patient Size

Adjust Patient Size

The Patient Info menu allows the clinician to adjust patient size. To adjust patient size on the V12 or V21 bedside monitor:

- Select **Enter Patient Information** (**Enter Patient Information** tab) or select **Enter Patient Information** (**Enter Patient Information** tab) to enter **Enter Patient Information** tab
- Select **Adjust Patient Size**
- Select **Adult**, **Pediatric**, or **Neonate**
- Select **Save** to save settings and return to the main screen

Adjusting patient size restores the default (preconfigured) settings but does not clear patient information or data. Patient size is retained upon discharge.

Patient size cannot be changed from the Panorama Central Station.

*Configurable

Discharge (V12 or V21)

The Discharge function clears all patient information and restores default (preconfigured) settings.

To Discharge a patient from the V12 or V21 bedside monitor:

- a. Select (tab)
or select (tab) and select tab
- b. Select
- c. Select to confirm

After the patient is discharged, default (preconfigured) settings are restored and Discharged is displayed on the V12 or V21 bedside monitor.

Discharging a patient on the V12 or V21 bedside monitor automatically discharges the patient on the Panorama Central Station, WorkStation, and ViewStation. Discharging the patient on the Panorama Central Station discharges the patient on the WorkStation, ViewStation, and V12 or V21 bedside monitor (optional).

A. DB

Standby (V12 or V21)

The Standby function allows the clinician to suspend monitoring on a patient. While in standby, the patient is not monitored; however, all data and settings are preserved.

To place a patient into Standby on the V12 or V21 bedside monitor:

- a. Select (tab)
- Or
- a. Select (tab) and select

Remove Standby (V12 or V21)

Touch anywhere on the screen to remove a patient from Standby and resume monitoring on the V12 or V21 bedside monitor

*Configurable

Placing a patient in standby on the V12 or V21 bedside monitor automatically places the Panorama Central Station, WorkStation, and ViewStation in standby. Selecting on the Panorama Central Station or WorkStation automatically places the bedside monitor and ViewStation in standby. Touch anywhere on the screen on the V12 or V21 bedside monitor to remove a patient from standby as a patient cannot be removed from Standby on the Panorama Central Station.

AC DE

To suspend alarm notification and turn off the display on the V12 or V21 bedside monitor when admitted to the Panorama Central Station:

- a. Select (tab)

Or

- a. Select (tab) and select .

To remove a patient from Privacy Mode and resume monitoring on the V12 or V21 bedside monitor touch anywhere on the screen.

If communication is interrupted between the V12 or V21 bedside monitor and the Panorama Central Station, Privacy Mode is disabled.

A patient cannot be removed from Privacy Mode from the Panorama Central Station. The patient must be removed from Privacy Mode on the V12 or V21 bedside monitor.

AC DE



To print a strip on a patient on the V12 or V21 bedside monitor:

- a. Select in the Navigational Area
- b. Select (modular recorder enabled)

*Configurable

Print Location Settings

To adjust the print location for a patient on the V12 or V21 bedside monitor:

- a. Select **Print Location** (**Print** tab)
- b. Select **Print Location** tab
- c. Select
 - 1) **Print Location** to set the **Print** location
 - 2) **Print Location** to set the automatic alarm printing location (Refer to Alarm Responses tab)
 - 3) **Print Location** to set the historical and other reports' location
- d. Select
 - 1) **Print Location** to print to the modular recorder
 - 2) **Print Location** to print to a predetermined laser printer
 - 3) **Print Location** to simultaneously print to the modular recorder and a predetermined laser printer
- e. Select **Save** to save settings and return to the main screen

Printed Waveform Settings

To adjust printed waveforms on a patient on the V12 or V21 bedside monitor:




- a. Select **Printed Waveform** (**Print** tab)
- b. Select **Printed Waveform**
- c. Select **Printed Waveform** **Printed Waveform** **Printed Waveform** **Printed Waveform** **Printed Waveform**
 - 1) Select waveform and select **Printed Waveform** to add waveform to the selected listOr
 - 2) Select waveform from the selected list and select **Printed Waveform** to remove the waveform from the selected List
- d. Select **Save** to save settings and return to the **Printed Waveform**
- e. Select **Save** to return to the main screen


ECG



The V12 or V21 bedside monitor allows the clinician to adjust the leads being viewed on the main screen.

To adjust an ECG Lead on the V12 or V21 bedside monitor:


- a. Select ECG waveform to enter  tab
- b. Select 
- c. Scroll and select lead from drop down menu
- d. Select  to save settings and return to the main screen

 Adjusting ECG leads on the V12 or V21 bedside monitor, Panorama® Central Station, WorkStation, and ViewStation are independent.



The V12 or V21 bedside monitor allows the clinician to enable pacemaker enhancement.

To enable the pacemaker enhancement on the V12 or V21 bedside monitor:


- a. Select ECG waveform to enter  tab

Or































- a. Select  ( tab) and select  to enter  tab

 (Version 2.5 or greater)

The V12 or V21 bedside monitor allows the clinician to select the primary and secondary leads used for arrhythmia analysis as well as a third lead for beat classification. To adjust these leads on the V12 or V21 bedside monitor:
























- a. Select ECG waveform to enter  tab

Or

- a. Select  ( tab) and select ECG to enter  tab
- b. Select  tab
- c. Select        
- d. Scroll and select lead from drop down menu
- e. Select        
- f. Scroll and select lead from drop down menu
- g. Select        
- h. Scroll and select lead from drop down menu
- i. Select  to save settings and select  (as needed) to return to the main screen





 (Version 2.5 or greater)

The V12 or V21 bedside monitor allows the clinician to manually adjust the QRS threshold on (detection) to avoid noise spikes or P-waves as valid beats. To adjust the QRS threshold on the Primary and Secondary Analysis leads on the V12 or V21 bedside monitor:








































































































- a. Select HR tile to enter   tab
- b. Select  tab
- c. Select  to enter        dialog
- d. Adjust threshold line using  or 
- e. Select        
- f. Select  to save settings and select  to return to the main screen

■                             





To initiate arrhythmia and ST learning manually on the V12 or V21 bedside monitor:

- a. Select ECG waveform to enter     tab


















































































































































Or

- a. Select                          ( tab) and select   to enter     tab
- b. Select                         to update arrhythmia and ST templates
- c. Select,                         to save settings and select                        (as needed) to return to the main screen




■                               (Version 2.5 or greater)

- a. Select ECG waveform to enter     tab

































































Or

- a. Select                          ( tab) and select   to enter     tab
- b. Select,                          tab
- c. Select,                         and select,                 
- d. Select,                         to save settings and select                        (as needed) to return to the main screen

                             (Version 2.5 or greater)

- a. Select ECG waveform to enter     tab

Or

- a. Select                          ( tab) and select   to enter     tab
- b. Select,                          tab
- c. Select,       

■ **ST Analysis**

To initiate ST analysis on the V12 or V21 bedside monitor:

- a. Select ST tile and select **ST** tab

Or

- a. Select **ST** tile (**ST** tab) and Select **ST** to enter the **ST** tab
- b. Select **ST**, and select **ST**
- c. Select **ST** to save settings and select **ST** (as needed) to return to the main screen

12 L₁₂ ECG

■ **12 L₁₂ ECG**

The V12 or V21 bedside monitor allows the clinician to monitor 12 Leads of ECG and provide a 12 Lead Interpretive Report.

To enable 12 Lead ECG on V12 or V21 bedside monitor:

- a. Prep patient's skin in accordance with hospital policy
- b. Attach electrode to lead wire before placing on patient
- c. Place electrodes on patient in accordance with hospital policy
- d. Insert 12 Lead ECG Module into V-Patient Server (VPS)
- e. Select ECG waveform to enter **ECG** tab
- f. Select **ECG**
- g. Scroll and select **ECG** from drop down menu
- h. Select **ECG** to save settings and return to the main screen

■ **12 L₁₂ ECG**



To view 12 Lead ECG on V12 or V21 bedside monitor:

- a. Select **ECG** (**ECG** tab)

Or



- a. Select ECG waveform to enter **ECG** tab and select **ECG**
- b. Select **ECG** a 2nd time to remove viewing of 12 Lead ECG

*Configurable





If viewing on V12 monitor selecting  a second time will display the next 6 leads and selecting  a third time will remove viewing of 12 Lead ECG



To print a 12 Lead ECG Interpretive Report on V12 or V21 bedside monitor:

- a. Select  tab in Navigation Area
- b. Select  to print to the configured location

Or

- a. Select  tab in Navigation Area
- b. Select 
- c. Select  to print to the configured location
- d. Select  to return to the main screen

IB






To initiate a NIBP measurement on a patient on the V12 or V21 bedside monitor

- a. Select  on the VPS module

Or



- a. Select  ( tab)

Or




- a. Select NIBP tile to enter the  tab and Select 
- b. Select  to return to the main screen




The V12 or V21 bedside monitor allows the clinician to set an interval for a NIBP measurement to be obtained automatically.

To set an automatic interval on the V12 or V21 bedside monitor:


- a. Select  ( tab) repeatedly to the preferred interval

Or



- a. Select NIBP tile
- b. Select  tab
- c. Select 
- d. Scroll and select interval
- e. Select  to save settings and to return to the main screen

When a NIBP interval is first selected,  **must** be selected. If the NIBP interval is adjusted,  is not required.  must be re-selected if the NIBP interval is interrupted (i.e. Standby, NIBP Stop, etc).



During NIBP cuff inflation, to stop **all** NIBP measurements on a patient on the V12 or V21 bedside monitor:

- a. Select  on the VPS module

Or

- a. Select  ( tab)

Or

- a. Select NIBP tile
- b. Select 
- c. Select  to return to the main screen





  must be selected to resume interval.

*Configurable












IBP A EBL D E E


The V12 or V21 bedside monitors allow a clinician to monitor up to 8 invasive blood pressures (IBP) simultaneously.

To adjust the label on an invasive blood pressure on the V12 or V21 bedside monitor:


- Insert IBP Module as needed
- Select the invasive blood pressure waveform to enter,    and select,  tab

Or





- Select    ( tab) and select the Invasive Blood Pressure (ART, CVP, etc.) to enter the,    
- Select 
- Select label
- Select,  to save settings and select,  (as needed) to return to the main screen

 If the label is assigned to another IBP port, even if the IBP is not being displayed or utilized, the label will not be included in the list selection.

To zero one or more invasive blood pressure transducers on the V12 or V21 monitor:




- Insert IBP Module as needed
- Connect the invasive blood pressure cable to the invasive blood pressure transducer set
- Position transducer and open the invasive line in accordance with hospital policy
- Select  on the VPS module

Or

- Select    ( tab)

Or










*Configurable

- d. Select the invasive blood pressure waveform to enter, ,  and select .

Zero and flush the pressure line at regular intervals per standard hospital procedure.









The V12 or V21 bedside monitor allows overlapping of two invasive blood pressures on the main screen. To overlap two invasive blood pressures on the V12 or V21 bedside monitor:

- a. Select  in upper, right corner of main screen
- b. Select preset's name from Display Preset list
- c. Select, , .
- d. Select 1st invasive blood pressure to overlap
- e. Select, , .
- f. Select 2nd invasive blood pressure to overlap from drop down list
- g. Select, , to save settings and return to the ,  tab
- h. Select, , to return to the main screen









The V12 or V21 bedside monitors allow a clinician to monitor up to three temperatures simultaneously.



To adjust the temperature label on the V12 or V21 bedside monitor:






- a. Select the temperature tile to enter, , .
- b. Select, .
- c. Select, () .
- d. Select label
- e. Select, , to return to the main screen

Or








- Select  ( tab) and select Temperature to enter the   tab
- Select, () 
- Select label
- Select,  to save settings and select  (as needed) to return to the main screen



To adjust the temperature's units on the V12 or V21 bedside monitor:

- Select the temperature tile to enter,   tab
- Select,  tab
- Select 
- Select °C or °F
- Select,  to return to the main screen

Or






- Select  ( tab) and select Temperature to enter the   tab
- Select 
- Select °C or °F
- Select,  to save settings and select  (as needed) to return to the main screen

ALARMS




















The Alarms tab allows the clinician to configure alarm limit and alarm responses on the V12 or V21 bedside monitor.

To adjust a patient's alarm limit on the V12 or V21 bedside monitor:

- Select parameter's numeric tile to open parameter's,   tab
- Select High or Low limit value
- Adjust value using on screen keypad or select,  to disable the parameter's alarm limit(s)
- Select 
- Select,  to save settings and return to the main screen



Or

- a. Select  tab from Navigation Area
- b. Select 
- c. Select alarm limit group's tab (i.e. ECG/Resp, Oximetry, etc.)
- d. Select parameter
- e. Select High or Low limit value
- f. Adjust value using on screen keypad or select  to disable the parameter's alarm limit(s)
- g. Select 
- h. Select  to save settings and return to the   tab
- i. Select  to return to the main screen

         Changing alarm limits on the Panorama Central Station or WorkStation will automatically change alarm limits on the V12 or V21 bedside monitor. Changing alarm limits at the V12 or V21 bedside monitor will automatically change alarm limits on the Panorama Central Station and WorkStation.

To adjust a patient's alarm responses on the V12 or V21 bedside monitor:

- a. Select  tab from Navigation Area
- b. Select 
- c. Select applicable alarm limit group's tab (i.e. ECG/Resp, Oximetry, etc.)
- d. Select parameter
- e. Select

Changing alarm responses at the Panorama Central Station or WorkStation will not change alarm responses on the V12 or V21 bedside monitor. Changing alarm responses at the V12 or V21 bedside monitor will not change alarm responses on the Panorama Central Station and WorkStation.

To adjust a patient's arrhythmia alarm on the V12 or V21 bedside monitor:




















- Select ECG waveform to enter **ECG** tab
- Select **ARR** tab
- Select individual arrhythmia
- Select
 - ON/OFF** to enable or disable arrhythmia alarm notification (A in the box indicates selected)
 - ALARM** () **ALARM** () or **ALARM** () – to adjust the audio and visual alarm indicators
- Select **SAVE** to save settings and return to the main screen



Or



























- Select **ARR** tab from Navigation Area
- Select **ARR** to enter the **ARR** tab
- Select individual arrhythmia
- Select
 - ON/OFF** to enable or disable arrhythmia alarm notification (A in the box indicates selected)
 - ALARM** () **ALARM** () or **ALARM** () – to adjust the audio and visual alarm indicators
- Select **SAVE** to save settings and return to the main screen

Adjusting arrhythmia alarms on the V12 or V21 bedside monitor

To adjust a patient's alarm responses on the V12 or V21 bedside monitor:















- a. Select   tab from Navigation Area
- b. Select   to enter the   tab
- c. Select   tab
- d. Select arrhythmia
- e. Select
 -    – to enable the audio notification.
 -     – to activate an automatic printing when the alarm occurs
 -    – to save a 20 second event in the Events tab ( menu)

(A in the box indicates selected)
- f. Select   to save settings and return to the main screen

















                          Adjusting arrhythmia alarms at the Panorama Central Station or WorkStation **will not** change arrhythmia alarms on the V12 or V21 bedside monitor. Adjusting arrhythmia alarms at the V12 or V21 bedside monitor **will** affect the arrhythmia alarm on the Panorama Central Station, ViewStation, and WorkStation.

Disabling all arrhythmia alarms on the V12 or V21 bedside monitor




To disable all arrhythmia alarms **except lethal** arrhythmias on the V12 or V21 bedside monitor:

- a. Select ECG waveform to enter   tab
- b. Select   tab
- c. Select        
- d. Select   to save settings and return to the main screen






Or

- a. Select   tab from Navigation Area
- b. Select   to enter the   tab
- c. Select        
- d. Select   to save settings and return to the main screen


To adjust a patient's arrhythmia threshold setting on the V12 or V21 bedside monitor:


















- Select ECG waveform to enter  tab
- Select  tab
- Select individual arrhythmia threshold
- Scroll and select value or enter value using on screen keypad
- Select  to save settings and return to the main screen

Or


- Select  tab from Navigation Area
- Select  to enter the  tab
- Select 
- Select individual arrhythmia threshold
- Scroll and select value or enter value using on screen keypad
- Select  to save settings and return to the main screen


















  ALARM (Version 2.5 or greater)

Select  in the Navigation Area on the V12 or V21 bedside monitor to silence all current alarms for a preconfigured time interval or until the alarm condition is resolved.


               Selecting  on the V12 or V21 bedside monitor will silence an alarm on the Panorama Central Station, WorkStation, and ViewStation for a *preconfigured amount of time*. Selecting  at the Panorama Central Station *will not silence* an alarm at the V12 or V21 bedside monitor.



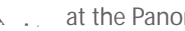
  ALL ALARMS (Version 2.5 or greater)

Select  in the Navigation area on the V12 or V21 bedside monitor to silence all current and future alarms for a preconfigured time interval.


               Selecting  on the V12 or V21 bedside monitor will pause active alarms on the Panorama Central Station, WorkStation, and ViewStation for a *preconfigured amount of time*. Selecting  at the Panorama Central Station *will not pause* alarms on the V12 or V21 bedside monitor.




(Version 2.4 or earlier)

Select  in the Navigation Area on the V12 or V21 bedside monitor to silence all current alarms for a preconfigured time interval or until the alarm condition is resolved.

 Selecting  on the V12 or V21 bedside monitor will silence an alarm on the Panorama Central Station, WorkStation, and ViewStation for a *preconfigured amount of time*. Selecting  at the Panorama Central Station *will not silence* an alarm on the V12 or V21 bedside monitor.


(Version 2.4 or earlier)


Select  in Navigation Area on the V12 or V21 bedside monitor to silence all current and future alarms for a preconfigured time interval.


 Selecting  on the V12 or V21 bedside monitor will silence active alarms on the Panorama Central Station, WorkStation, and ViewStation for a *preconfigured amount of time*. Selecting  at the Panorama Central Station *will not silence* alarms on the V12 or V21 bedside monitor.















The V12 or V21 bedside monitor has the ability to transfer patient data through the VPS (V-Patient Server).

To transfer patient data from one V12 or V21 bedside monitor to another V12 or V21 bedside monitor:




























- Remove VPS from original V12 or V21 bedside monitor
- Insert VPS into new V12 or V21 bedside monitor
- Select from the  menu

1.  to continue with the patient data and settings in the new monitor and delete all patient data and setting on the original VPS.

2.  to transfer 12 hours of patient data and settings on the original VPS to the new monitor and delete all previous patient data on the new monitor.

3.  to delete all patient data on the original VPS and all patient data on the new monitor. Default settings for the patient category are applied to the new patient.             





                           Transferring patient data from one V12 or V21 bedside monitor **will not** transfer data within the Panorama Central Station. Transferring data within a Panorama Central Station or to a different Panorama Central Station **may** affect the V12 or V21 bedside monitor.

HE D I A I C I N G











                             

Cardiac Output (C.O.) is the amount of blood ejected from the left ventricle each minute, expressed in liters per minute (l/min). Cardiac Index (CI) is the Cardiac Output divided by the patient's body surface area.





To initiate a Cardiac Output measurement on the V12 or V21 bedside monitor:

- a. Insert C.O. Module
- b. Connect the C.O. cable to the C.O. connector on the monitor interconnecting the C.O. Module, PA Catheter, and injectate.
- c. Select C.O. tile to enter C.O., , , tab and select,  - .

Or

- c. Select , tab from the Navigation Area and select,  - .
- d. Verify the computation constant or adjust the computation constant in the  tab
- e. Enter height/weight in the  tab to obtain calculated Cardiac Index
- f. Select,  to return to  dialog
- g. Inject solution when   - message is displayed (Auto start is enabled in  tab)

Or

- g. Select ,  - and inject solution within 4 seconds to perform a Cardiac Output measurement when  - message is displayed (Auto Start is disabled in  tab)

- h. Wait 1 minute between injections to allow baseline stabilization
- i. Perform additional Cardiac Output measurements as needed
- j. Select measurement to include/exclude in the Cardiac Output average (A in the box indicates cardiac output measurement is selected. An in the box indicates the cardiac output measurement is rejected)
- k. Select to print C.O. Run(s) to thermal printer modular recorder
- l. Select to access the Hemodynamic Calculations dialog

Or

- l. Select to return to the main screen

Pulmonary Artery Wedge Pressure (PAWP) (,)

Pulmonary Artery Wedge Pressure (PAWP) is a pressure measurement derived from a PA catheter when the PA distal balloon is inflated and the catheter advances and occludes a distal pulmonary artery. PAWP pressure is a reflection of the pressure in the left ventricle at end-diastole.

To initiate a PAWP measurement on the V12 or V21 bedside monitor:

- a. Select waveform or numeric tile and select

Or

- a. Select tab from the Navigation Area and select
- b. Select to adjust PA sweep speed, PA scale, or display Art line
- c. Select to return to dialog
- d. Inflate balloon and watch PA waveform for wedge waveform
- e. Select to freeze the waveform once a satisfactory wedge waveform is detected
- f. Adjust PAWP reference line to the desired position using or
- g. Select to enter the PAWP measurement and to return to the main screen

Or

- g. to repeat measurement

Follow manufacturer's suggested procedures and hospital policy for PAWP balloon inflation.










Hemodynamic calculations are a set of values that are used to determine the hemodynamic status of the patient.

To initiate hemodynamic calculations on the V12 or V21 bedside monitor:

- a. Select  from C.O. dialog

Or

- a. Select  tab from the Navigation Area and select    HR, Art (Mean and Diastolic), PA (Mean), CVP, PAWP, and average C.O. measurements are automatically entered from current or accepted values along with height and weight if previously entered.
- b. Select remaining parameter and manually enter (*indicates manual entry)
- c. Select  to complete calculation
- d. Select  to print the currently displayed Hemodynamic Calculations
- e. Select  to return to the main screen







VIEW DISPLAY


The V12 and V21 allow the clinician to adjust the main display based on patient acuity.





To enter the display selection menu and adjust the main screen's layout on the V12 or V21 bedside monitor:

- a. Select 

- c. Select  to save settings
- d. Select waveform area to adjust waveform
- e. Select new waveform parameter from list or select  to remove waveform
- f. Select tile to adjust numeric parameter
- g. Select new numeric parameter from list or select  to remove numeric parameter
- h. Select  to save settings and return to the  tab
- i. Select  to return to the main screen

 The first waveform is always ECG lead and HR is always located in the first digital tile in the display selection.









  Digital and waveform display selections on the Panorama Central Station, WorkStation, and ViewStation are independent of the V12 or V21 bedside monitor.

HI


View Trends







The List tab stores 3000 trend sets on a patient.



To display and adjust List trends on a patient on the V12 or V21 bedside monitor:

- a. Select  in the Navigation Area
- b. Select  tab
- c. Select  to specify trend category or select  for user defined parameters to be displayed
- d. Select  to save settings
- e. Select  to specify the time interval list trends are to be displayed
- f. Select  to save settings
- g. Select  to return to the main screen

To print List trends on a patient at the V12 or V21 bedside monitor:

- a. Select  in the Navigation Area








- Select  in the Navigation Area
- Select  tab
- Scroll and highlight waveform
- Select  and  to expand waveform
- Select  to print to the configured location
- Select  to return to the main screen

  Full disclosure storage and printing on the V12 or V21 bedside monitor and Panorama Central Station are independent.

L E

The alarm volume and QRS volume can be adjusted on the V12 or V21 bedside monitors.








To adjust the alarm volume on the V12 or V21 bedside monitor:


- Select  tab from Navigation area
- Select  
- Select volume ranging from X*-10 (X=minimum, 10=max) using arrows on   
- Select  to return to the main screen

 The minimum volume range is predetermined during installation (Version 2.5 or greater)

BEAT TONE









To adjust the beat tone (QRS tone) volume on the V12 or V21 bedside monitor:


- Select  tab from Navigation area
- Select  
- Select volume ranging from 0-10 (0=Off, 10=Max) using arrows on   
- Select  to return to the main screen

 The QRS tone is derived from the HR source (ECG, SPO₂, or IBP). When monitoring SpO₂, there is a variable pitch tone which changes as the patient's saturation level changes. The pitch of the tone rises as the saturation level increases and falls as the saturation level decreases.

DATE TIME

To adjust the date and time on the V12 or V21 bedside monitor:




- Select  in the upper, right corner on the main screen
- Select   and/or  to adjust the date
- Scroll and select the value or enter value using on screen keypad
- Select   and/or  to adjust the time
- Scroll and select the value or enter value using on screen keypad
- Enter value using on screen keypad
- Select  to save settings and return to the main screen


 - Adjusting the date and time on the Panorama Central Station will adjust the date and time at the V12 or V21 bedside monitor. **The date and time cannot be adjusted at the V12 or V21 bedside monitor when interfacing with the Panorama Central Station.**

PARAMETER COLOR

The V12 or V21 bedside monitor provides the ability to adjust the parameter's numeric and waveform (if applicable) color.

To adjust a parameter's color on the V12 or V21 bedside monitor:

- Select parameter's waveform or numeric tile
- Select parameter's  tab
- Select 
- Scroll and select color
- Select  to save settings and return to the main screen

 - Parameter color on the V12 or V21 bedside monitor, Panorama Central Station, ViewStation, and WorkStation are independent.






DEFAULTS (RESETTING)

The V12 or V21 bedside monitor's settings are automatically restored either when the patient size is adjusted or when Discharge is performed.

*Configurable

LOCK/UNLOCK, CHARGE DISPLAY

The V12 or V21 bedside monitor provides the ability to lock the touch screen display temporarily for cleaning purposes. To temporarily lock the display on the V12 or V21 bedside monitor:

- a. Select  tab in Navigation area
- b. Select  to enter  tab
- c. Select 
- d. A 10 second screen lock is displayed allowing for cleaning of the screen
- e. Select  to return to the main screen

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