













# Hardkeys



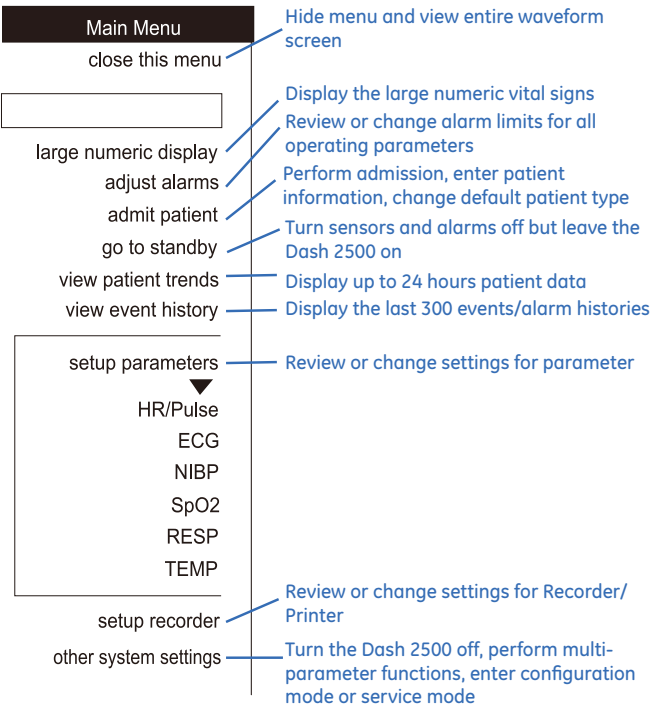
## Left Panel

-  **NIBP Go/Stop** - starts and stops any determination of non-invasive blood pressure.
-  **NIBP Auto** - is a dual-function hardkey. Starts auto BP determinations by a single-press and gives you access to change the NIBP cycle time. Starts stat determinations by pressing and holding the key down (5 minutes of continuous NIBP cycles).
-  **Zero** - zeros the IBP determination. This hardkey is not available, it's reserved for future use.
-  **Silence Alarm** - temporarily silences alarms; acknowledges alarming crisis conditions.
-  **Power** - turns the Dash 2500 off and on.

## Right Panel

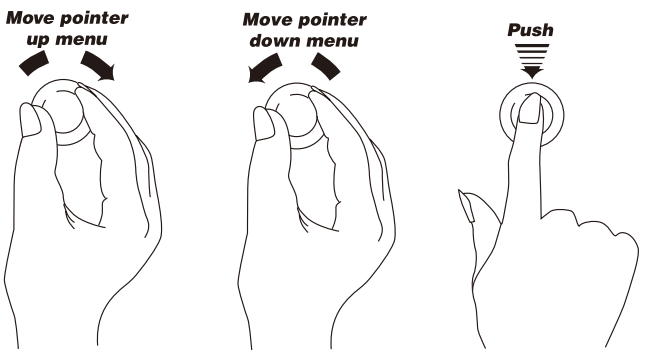
-  **Print** - prints a snapshot (timed recording) with a single-press. Pressing and holding the key down allows for a continuous recording of the chosen waveforms.
-  **Freeze** - captures up to 16.8 seconds of waveforms on the screen. The number of seconds varies depending on the selected sweep speed.
-  **Trend** - enters and exits trends (view patient trends data). This hardkey can be configured through the configuration mode to display two different views: mini trends or full trends.
-  **Standby** - enters and exits standby mode.
-  **Main** - closes the menu system and takes you back to the main screen.

# Main Menu



## Trim Knob

The Trim Knob® lets you navigate through the menus and choose among the various options for patient monitoring and data management, as well as turning the Dash 2500 on. You can also use the Trim Knob as a shortcut for closing menus by pushing and holding it for 2 seconds, which acts the same as the **Main** hardkey. If you choose a menu option that is unavailable, the Dash 2500 sounds a double-tone indicating its unavailability.



## Start Monitoring

- Turn on the power by pushing either the Power button or the Trim Knob when plugged into AC power
- Ensure necessary cables are connected to the monitor
- Ensure necessary accessories are connected to the patient
- Check that the desired parameters are displayed on the screen

## Admitting a patient

Whenever you turn on the Dash 2500 or return from standby, a popup window will ask you to admit a new patient. If you want to admit a patient during monitoring:

- Choose **admit patient** from the **Main Menu**
- Choose **admit** from the **admit patient** menu
- Choose **patient type**
- Enter patient name, bed number, unit number

## Discharging a patient

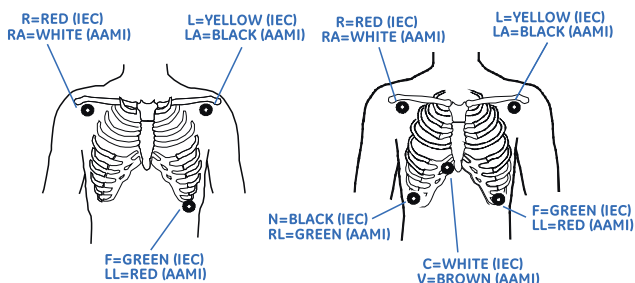
You can discharge a patient at any time during monitoring. Discharging a patient automatically saves the patient data in patient trends as previous patient.

- Choose **admit patient** from the **Main Menu**
- Choose **discharge** from the **admit patient** menu

## ECG

ECG monitoring is accomplished with the GE EK-Pro arrhythmia algorithm that supports 3/5 leadwire ECG and is configured for two-lead arrhythmia analysis.

- Plug the suitable cable connector into the monitor
- Connect the lead wires to the electrodes
- Prepare the patient's skin, apply electrodes to patient



- Provide support for cable and block
- Select **ECG** from the **setup parameters** option in the **Main menu**
- Set up monitoring parameters

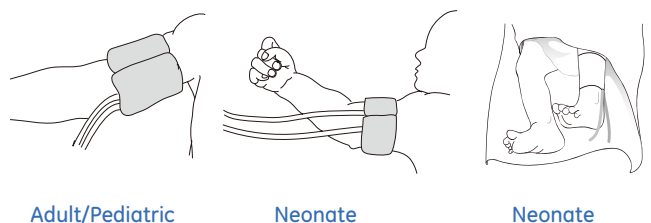
Setup ECG		
go to main menu		
turn parameter off		
Primary lead	Lead II	Suspend all monitoring and alarms for ECG. Choose primary lead.
Secondary lead	Lead V1	Choose secondary lead.
Waveform size	1X	Increase or decrease the size of all the ECG waveforms displayed on the screen.
Pacer detection?	PACE OFF	Enable/disable the pacemaker detection algorithm.
Arrhythmia detection	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>	Choose to detect lethal arrhythmias.
	Re-learn	Learn the new ECG pattern and correct the calculations of the HR/Pulse value.
Label VA	V1	Choose the label of VA lead from V1, V2, V3, V4, V5, V6 or None.
Advanced settings...		
Config settings		

**NOTE:** The options **Primary lead**, **Secondary lead** and **Label VA** are only active in 5 lead configuration. The option **Lead selection** is active in 3 lead configuration to choose I, II or III as the selected lead.

## NIBP

Blood pressure is monitored by GE DINAMAP® SuperSTAT™ Non-invasive Blood Pressure Algorithm that uses the oscillometric method of measurement.

- Connect hose to NIBP connector on side of the Dash 2500
- Measure patient's limb and select properly sized cuff
- Connect cuff to hose
- Squeeze air from cuff



- Manual mode: push the **NIBP Go/Stop** hardkey once to obtain immediate determination.
- Select **NIBP** from the **setup parameters** option in **Main Menu** to set or change limits or to set up auto mode.
- Auto mode: quick-push the **NIBP Auto** hardkey to begin auto BP determinations.
- Stat mode: push-and-hold the **NIBP Auto** hardkey to obtain continuous determinations for 5 minutes.

Setup NIBP

go to main menu

turn parameter off

setup custom series

Auto BP manual

Adjust limits auto-set

systolic hi 200 lo 80

diastolic hi 120 lo 30

mean hi 140 lo 40

Advanced settings...

Suspend all monitoring and alarms for NIBP.

Configure a custom auto mode to meet the needs of your clinical situation.

Set time-cycled (auto mode) NIBP determinations.

Adjust or auto-set alarm limits. Choose hi to change the high alarm limit and lo to change the low alarm limit. You can set high and low limits individually for systolic, diastolic, and mean values. The system maintains appropriate separation between the high and low limits. Choose auto-set to use the patient's current readings in setting the high and low limits.

Setup SpO<sub>2</sub>

go to main menu

turn parameter off

View waveform? yes ☒ no ☐

Adjust limits auto-set hi 100 lo 90

Advanced settings...

Config settings...

Suspend all monitoring and alarms for SpO<sub>2</sub>.

Choose whether or not the plethysmographic waveform appear on the screen.

Adjust or auto-set alarm limits. Select hi to change the high alarm limit and lo to change the low alarm limit. The system maintains appropriate separation between the high and low limits.

**NOTE:** The **auto-set** option is not available for SpO<sub>2</sub>. You cannot choose the **auto-set** option to set the alarm limits for oxygen saturation. However, when SpO<sub>2</sub> is the source for HR/Pulse, using **auto-set** in the **Setup HR/Pulse** menu will set the alarm limits around the SpO<sub>2</sub> PR value.

## Heart Rate

Heart rate/pulse (HR/Pulse) in the Dash 2500 Patient Monitor can be derived from one of several sources. In descending order of priority, they are ECG, pulse oximetry (SpO<sub>2</sub>), and non-invasive blood pressure (NIBP). Instead of choosing a single source of HR/Pulse, you can activate the auto feature to choose the best available source.

- Prepare patient
- Connect monitoring lines
- Select **HR/Pulse** from the **setup parameters** option in the **Main Menu**
- Set up monitoring parameters

Setup HR/Pulse

go to main menu

Select source auto

Adjust QRS volume 0

Adjust limits auto-set hi 150 lo 50

Advanced settings...

Choose the source of the HR/Pulse data to be displayed on the screen.

Adjust the volume of the tone that sounds each time a QRS complex is detected.

Adjust or auto-set alarm limits. Select hi to change the high alarm limit and lo to change the low alarm limit. The system maintains appropriate separation between the high and low limits. Choose auto-set to use the patient's current readings in setting the high and low limits.

## SpO<sub>2</sub>

The SpO<sub>2</sub> parameter in the Dash 2500 Patient Monitor is available in two different leading technologies: Nellcor® and MASIMO SET®.

- Select sensor
- Plug sensor connector into SpO<sub>2</sub> port
- Apply sensor
- Select **SpO<sub>2</sub>** from the **setup parameters** option in the **Main Menu**
- Set up monitoring parameters

**NOTE:** Attach the SpO<sub>2</sub> sensor to the limb opposite the one with the blood pressure cuff.

**NOTE:** Remove nail polish and artificial nails.

## Respiration Rate

Respiration rate using the ECG electrodes is designated RESP.

- Make sure electrodes are positioned properly
- Select RESP from the **setup parameters** option in the Main Menu
- Set up monitoring parameters

Setup RESP

go to main menu

turn parameter off

Lead to analyze

Lead II

View waveform?

yes

no

Waveform size

1X

Adjust limits

auto-set

hi 30

lo 6

Advanced settings...

Config settings...

Suspend all monitoring and alarms for RESP.

Choose whether the impedance RESP will be derived from Lead I or Lead II.

Choose whether or not the impedance RESP waveform will appear on the screen.

Change the height of the RESP waveform to one fourth, one half, one, two, four or eight times the standard height.

Adjust or auto-set alarm limits. Select hi to change the high alarm limit and lo to change the low alarm limit. The system maintains appropriate separation between the high and low limits. Choose auto-set to use the patient's current readings in setting the high and low limits.

**NOTE:** When Adjust limits option is set to auto-set, RESP value is reduced each second until the RESP limit alarm is reached.

## Temp

The temperature parameter in the Dash 2500 Patient Monitor uses CareFusion Turbo Temp® technology and can be used with both oral (blue) and rectal (red) temperature probes. Two modes of operation are available: predictive and monitor.

- Select temperature probe
- Connect probe cable to monitor
- Insert temperature probe in the appropriate place of the patient
- Select **TEMP** from the **setup parameters** option in **Main Menu**
- Make sure correct determination mode is chosen
- Set up monitoring parameters

Setup TEMP

go to main menu

turn parameter off

Unit of measure

°F

Choose mode

predictive

trend monitor

temp now

Advanced settings...

Config settings...

Suspend all monitoring and alarms for TEMP.

Choose temperature displayed in either degrees Fahrenheit or degrees Celsius.

Choose either predictive or monitor mode.

In monitor mode, choosing this option causes the currently displayed temperature value to be trended.

## Network

The Dash 2500 network module is compatible with CARESCAPE™ CIC Pro version 4.0.8, 4.1.1, 5.0.8, 5.1.0 and all of other versions which are compatible with these four.

- Turn off power
- Connect network cable to the port labeled **"Ethernet"** on the rear of the Dash 2500. Connect the other end of the cable to the clinical network
- Turn on the Dash 2500. During this process, Dash 2500 will automatically acquire a unique IP address
- Admit a patient on the monitor. Set the UNIT name and BED name. On CARESCAPE CIC Pro devices right-click on multiple view window and select the monitor

## Use Demo Mode for training

The Dash 2500 displays all the fictional vital signs values and waveforms under Demo Mode. It is designed for training prior to use.

- Push and hold the **Silence Alarm** and **Main** hardkeys, then push the **Power** hardkey, hold the **Silence Alarm** and **Main** hardkeys until the Dash 2500 displays the entering screen; the start-up screen shows the **DEMO MODE** message in red in addition to the standard displays; the Dash 2500 enters Demo Mode
- The Dash 2500 displays all the vital signs values and waveforms; all these values and waveforms are not changeable under Demo Mode
- Push the **Power** hardkey to power off the Dash 2500 and exit Demo Mode

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