



# LIFEPAK<sup>®</sup> 15 MONITOR/DEFIBRILLATOR

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## Setup Options

This document describes how to enter Setup mode and change operating settings in the LIFEPAK 15 monitor/defibrillator.



## Defining Setup Options

Setup mode in the LIFEPAK 15 monitor/defibrillator allows you to change the factory default settings and define custom settings based on local medical protocols and your specific needs.

### WARNING

**POSSIBLE IMPROPER DEVICE PERFORMANCE** Changing factory default settings changes the behavior of the device. Changes to the default settings must only be made by authorized personnel.

Table 1 provides a convenient list of all setup options and the factory default settings. A column is provided to document any changes that you make to the settings. Tables 2 through 25 provide detailed information about each setup option. To change a setup option, proceed to "Entering Setup Mode" on page 6.

**Table 1** Setup Options Factory Default Settings

MENU	MENU ITEM	FACTORY DEFAULT SETTINGS	YOUR SETTINGS	
General	Language	(Country Specific)		
	Code Summary	Long		
	Trend Summary	Off		
	Site Number	000		
	Device ID	"LP15" + last 4 digits of serial number, for example, LP151234		
	Auto Log	On		
	Line Filter	60 Hz		
	Timeout Speed	30 seconds		
Manual mode	Sync After Shock	Off		
	Pads Default	200 (joules)		
	Energy Protocol	Inactive		
	Internal Default	10 (joules)		
	Voice Prompts	On		
	Shock Tone	On		
	Manual Access	Manual / Direct		
	Set Passcode	0000		
AED mode	Energy Protocol	200–300–360		
	Auto Analyze	Off		
	Motion Detection	On		
	Pulse Check	Never		
	CPR	CPR	CPR Time 1	120 seconds
			CPR Time 2	120 seconds
			Initial CPR	Off
			Initial CPR Time	120 seconds
Preshock CPR			Off	
CPR Metronome	Metronome	On		
	Adult - No Airway	30:2		
	Adult - Airway	10:1		
	Youth - No Airway	15:2		
	Youth - Airway	10:1		

**Table 1** Setup Options Factory Default Settings (Continued)

MENU	MENU ITEM	FACTORY DEFAULT SETTINGS		YOUR SETTINGS	
Pacing	Rate	60 PPM			
	Current	0 mA			
	Mode	Demand			
	Internal Pacer	Detection Off			
Monitoring	Channels	Default Set	Set 1		
	Set 1	Channel 1	ECG Lead II		
		Channel 2	None		
		Channel 3	None		
	Continuous ECG	On			
	SpO2 Tone	Off			
	CO2	Units	mmHg		
		BTPS	Off		
	NIBP	Initial Pressure	160 mmHg		
		Interval	Off		
	Trends	On			
	12-Lead	Auto Transmit	Off		
Auto Print		On			
Print Speed		25 mm/sec			
Interpretation		On			
Format		3-Channel Standard			
Events	Events Page 1	Event 2	Oxygen		
		Event 3	IV Access		
		Event 4	Nitroglycerin		
		Event 5	Morphine		
		Event 6	Cancel Last		
		Event 7	Intubation		
		Event 8	CPR		
		Event 9	Epinephrine		
		Event 10	Atropine		
		Event 11	Lidocaine		
		Events Page 2	Event 12	ASA	
	Event 13		Heparin		
	Event 14		Thrombolytic		
	Event 15		Glucose		
	Event 16		Naloxone		
	Event 17		Transport		
	Event 18		Adenosine		
	Event 19		Vasopressin		
	Event 20		Amiodarone		
	Event 21		Dopamine		
	Event 22		Bicarb		
	Alarms	Volume	5		
Alarms		Off			
VF/VT Alarm		Off			

**Table 1** Setup Options Factory Default Settings (Continued)

MENU	MENU ITEM	FACTORY DEFAULT SETTINGS	YOUR SETTINGS
Printer	Auto Print	Defibrillation	On
		Pacing	Off
		Check Patient	Off
		SAS	Off
		Patient Alarms	Off
		Events	Off
		Initial Rhythm	Off
	ECG Mode	Monitor	
	Monitor Mode	1–30 Hz	
	Diagnostic Mode	.05–40 Hz	
	Alarm Waveforms	On	
	Event Waveforms	On	
	Vitals Waveforms	Off	
Transmission	Default Site	None	
	Default Report	12-Lead	
	Wireless	On	
	Search Filter	On	
Clock	Date/Time	Current date/time PST	
	Clock Mode	Real Time	
	DST	Off	
	Time Zone	None	
Service	Maintenance	Off	
	Prompt Interval		

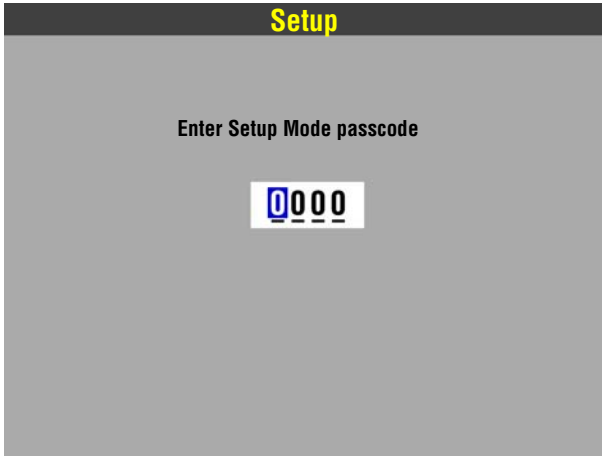
If you need to change setup options and you have multiple LIFEPAK 15 monitor/defibrillators to update, you can use the LIFEPAK Defibrillator Software Solutions Configuration Setup Tool to facilitate the process. For more information about this tool, see the LIFEPAK 15 monitor/defibrillator at [www.physio-control.com](http://www.physio-control.com).

# Entering Setup Mode

To enter Setup mode:

1. With the device powered off, hold down **OPTIONS** and **EVENT** and press **ON**—continue to press only **OPTIONS** and **EVENT** until the Setup / Enter Setup Mode Passcode menu appears.

If the window does not appear, turn off the device and repeat Step 1.



2. Use the **SPEED DIAL** to enter the passcode.

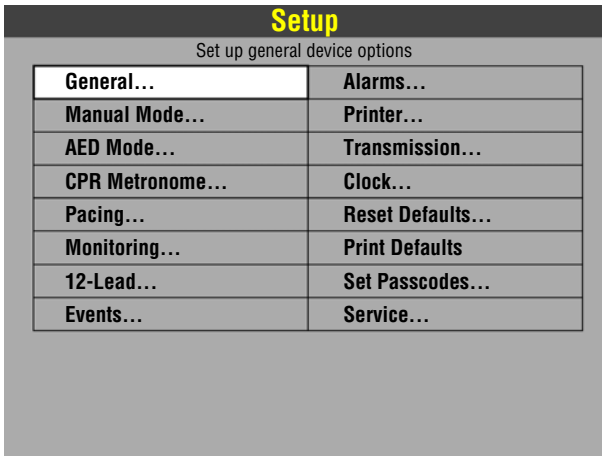
The factory default is 0000. If no organization passcode has been set, just press the **SPEED DIAL** four times—do not rotate the **SPEED DIAL**. Each zero changes to an asterisk (\*) when you press the **SPEED DIAL**.

If your organization set a passcode to enter Setup mode, you must enter your organization's passcode.

**Note:** If you enter the passcode incorrectly, the message **PASSCODE INCORRECT—TRY AGAIN** appears.

The Setup Home Screen appears when the passcode has been successfully entered.

To use the **SPEED DIAL** to navigate around the menu and select an item:



1. Rotate the **SPEED DIAL** to highlight the desired menu item. A help message appears above the menu.
2. Press the **SPEED DIAL** to select the item.

**Note:** While navigating in Setup mode, press the **HOME SCREEN** button on the front of the monitor at any time to return to the Setup Home Screen.

**Note:** Changes to the settings become effective when the device is turned off.

## General Setup

The Setup / General menu allows you to define general default settings such as language, site number, and device identification number. Select a menu item, select the option that you want, and then press **HOME SCREEN** to return to the Setup Home Screen.

**Table 2** Setup / General Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Language	Language used for all messages, prompts	<b>Country specific language</b> US English
Code Summary	Code summary format	Short, Medium, <b>Long</b>
Trend Summary	Include Trend Summary with Code Summary	On or <b>Off</b>
Site Number...	Site ID Number	<b>000</b>  Maximum 14 characters. After entering ID, select <b>End</b> to return to Setup / General menu. Number prints on report.
Device ID...	Device ID Number	“LP15” + last 4 digits of serial number, for example, LP151234  Maximum 14 characters. After entering ID, select <b>End</b> to return to Setup / General menu. Number prints on report.
Auto Log	Auto vital sign event capture every 5 minutes	<b>On</b> (Vital sign data entered into Event Log every 5 minutes)  Off (Vital sign data entered only when events occur)
Line Filter	Line filter center frequency	50 or <b>60</b> Hz
Timeout Speed	Delay before a menu is dismissed	5, 10, or <b>30</b> seconds  Time that menus stay on screen. (Pacing, 12-Lead/Age, and Transmit menus are fixed at 30 seconds.)

**Note:** If you change the **Site Number** or **Device ID**, previously stored patient records are not affected. Reprinted reports show the **Site Number** and **Device ID** that was defined at the time the record was stored.

## Manual Mode Setup

The LIFEPAK 15 monitor/defibrillator is set up to operate in Manual mode when it is turned on (factory default setting). Manual mode operation is used by Advanced Life Support (ALS) providers who are trained in arrhythmia detection and treatment. If required by your protocols, the device can be set up to power on in the automated external defibrillator (AED) mode. (See "AED Mode Setup" on page 10.)

The Setup / Manual Mode menu allows you to change settings for synchronized cardioversion and manual defibrillation.

**Table 3** Setup / Manual Mode Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Sync After Shock	Resume Sync after energy transfer	<b>Off</b> (Defibrillator returns to Asynchronous mode) <b>On</b> (Defibrillator returns to Sync mode after energy transfer)
Pads Default	Default energy for paddles or QUIK-COMBO electrodes	2, 5, 10, 50, 100, 125, 150, 175, <b>200</b> , 225, 250, 275, 300, 325, 360, or Energy Protocol (Power-on energy setting (joules) for standard paddles and therapy electrodes)  <b>Note:</b> During use, the Energy Protocol sequence is disabled when <b>ENERGY SELECT</b> or <b>ANALYZE</b> is pressed.
Energy Protocol...	Energies for Energy Protocol	<b>Inactive</b> See Table 4  <b>Note:</b> During use, the Energy Protocol sequence is disabled when <b>ENERGY SELECT</b> or <b>ANALYZE</b> is pressed.
Internal Default	Default energy for internal paddles	2, 5, <b>10</b> , 20, 30, or 50 (Power-on energy setting for internal paddles)
Voice Prompts	Voice prompts active in Manual mode	Off <b>On</b>
Shock Tone	Shock tone when defibrillator is fully charged	Off <b>On</b>
Manual Access	Means for accessing Manual mode (from AED mode)	<b>Manual / Direct</b> , AED / Direct, AED / Confirm Once, AED / Confirm Always, AED / Passcode Once, AED / Passcode Always, AED / Restricted  For more information about the following definitions, see "Switching from AED Mode to Manual Mode" in the <i>LIFEPAK 15 Monitor/Defibrillator Operating Instructions</i> .  Direct: No restrictions to access Manual mode Confirmed: Confirmation required to access Manual mode Passcode: Passcode required to access Manual mode Restricted: No access allowed to Manual mode
Set Passcode...	Passcode required to enter Manual mode	<b>0000</b> (Default passcode)  Used when AED / Passcode Once or AED / Passcode Always is selected for Manual Access



## Manual Mode Energy Protocol

The Setup / Manual Mode / Energy Protocol menu allows you to set energy levels for the Energy Protocol in Manual mode.

**Note:** To enable, set the **Pads Default** option to **Energy Protocol** in the Setup / Manual Mode menu.

**Table 4** Setup / Manual Mode / Energy Protocol

MENU ITEM	HELP MESSAGE	OPTIONS
Energy 1	Select energy level for shock 1	150, 175, <b>200</b> , 225, 250, 275, 300, 325, 360
Energy 2	Select energy level for shock 2	150, 175, 200, 225, 250, 275, <b>300</b> , 325, 360
Energy 3	Select energy level for shock 3	150, 175, 200, 225, 250, 275, 300, 325, <b>360</b>

**Note:** Energy level for shock 2 can not be set less than energy level for shock 1. Energy level for shock 3 can not be set less than energy level for shock 2.

## AED Mode Setup

AED mode operation is for use by Basic Life Support (BLS) providers and provides a prompted protocol and automated ECG analysis for treatment of patients in cardiac arrest.

If you want the LIFEPAK 15 monitor/defibrillator to operate in AED mode when it is turned on, you must change several setup options in different menus:

1. In the Setup / Manual Mode menu, select **Manual Access**.
2. Select the desired AED / XXX option.
3. Press **HOME SCREEN**.
4. Select **Monitoring** and then select **Channels**.
5. Select **Set 1** and then select **Channel 1**.
6. Select **Paddles**.
7. Select **Previous Page**. Confirm that **Set 1** appears as the Default Set.

After you complete Steps 1–7, the monitor initiates the AED prompted protocol when it is turned on.

The Setup / AED Mode menu allows you to change settings for the AED prompted protocol.

The Setup / AED Mode menu factory default settings are consistent with 2005 American Heart Association (AHA) and European Resuscitation Council (ERC) guidelines. AED mode setup options should be changed only under the direction of a physician knowledgeable in cardiopulmonary resuscitation who is familiar with the literature in this area.

**Table 5** Setup / AED Mode Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Energy Protocol...	Sequence of defibrillation energies	<b>200–300–360</b> See Table 6
Auto Analyze	Select Auto Analyze options	<b>Off</b> (Auto analyze inactive) After 1st shock (The second and third rhythm analyses of each three-shock stack start automatically. Stacked Shocks must be set to On.)
Motion Detection	Alert when motion is detected	Off or <b>On</b>
Pulse Check	Enable pulse check prompt	<b>Never</b> (Never prompt for Pulse Check) After Second NSA (After every “No Shock Advised” (NSA) except for first analysis NSA result) After Every NSA (Only after “No Shock Advised”) Always (After every three-shock stack and every NSA)
CPR...	Set CPR options for AED mode	See Table 7

## AED Mode Energy Protocol

The Setup / AED Mode / Energy Protocol menu allows you to set energy levels for the Energy Protocol in AED mode.

**Table 6** Setup / AED Mode / Energy Protocol

MENU ITEM	HELP MESSAGE	OPTIONS
Energy 1	Select energy level 1 setting	150, 175, <b>200</b> , 225, 250, 275, 300, 325, 360
Energy 2	Select energy equal to or greater than Energy 1	150, 175, 200, 225, 250, 275, <b>300</b> , 325, 360
Energy 3	Select energy equal to or greater than Energy 2	150, 175, 200, 225, 250, 275, 300, 325, <b>360</b>
Stacked Shocks	Enable consecutive shocks without CPR	<b>Off</b> or On  <b>Note:</b> When set to <b>Off</b> , the <b>Stacked Shocks</b> option inserts prompting for CPR after each shock, eliminating the three-shock stack.

**Note:** The 150 and 175 joules options are not available in Japan.

## CPR Setup

The Setup / AED Mode / CPR menu allows you to set the time for four CPR intervals.

**Table 7** Setup / AED Mode / CPR Menu

MENU ITEM	HELP MESSAGE	OPTIONS
CPR Time 1*	Set CPR interval after shocks	15, 30, 45, 60, 90, <b>120</b> , 180 seconds, 30 minutes
CPR Time 2*	Set CPR interval after No Shock Advised	15, 30, 45, 60, 90, <b>120</b> , 180 seconds, 30 minutes
Initial CPR	Enable Initial CPR	<b>Off</b> , Analyze First, CPR First
Initial CPR Time*	Set Initial CPR interval	15, 30, 45, 60, 90, <b>120</b> , 180 seconds  <b>Note:</b> The <b>Initial CPR Time</b> option applies when <b>Initial CPR</b> is set to <b>Analyze First</b> or <b>CPR First</b> .
PreShock CPR*	Set CPR interval after shock advised decisions	<b>Off</b> , 15, 30 seconds  <b>Note:</b> When <b>Initial CPR</b> is set to <b>Off</b> or <b>CPR First</b> , <b>PreShock CPR</b> time applies to the first and all subsequent shocks.  When <b>Initial CPR</b> is set to <b>Analyze First</b> , <b>PreShock CPR</b> applies to the second and all subsequent shocks.

\* During use, CPR time shown on the countdown timer may vary slightly when the CPR metronome is installed and set to **On**. When the CPR metronome is active during use, CPR times are adjusted to end CPR compression “tocks” on a full compression cycle. As a result, the CPR countdown timer shows CPR time that approximates the seconds selected in this table.

For a description of the AED prompting that occurs when **Initial CPR** or **PreShock CPR** time is enabled, see “Special AED Setup Options” in the *LIFEPAK 15 Monitor/Defibrillator Operating Instructions*.

## Advisory Monitoring Setup

Advisory Monitoring is a special way to set up the LIFEPAK 15 monitor/defibrillator that allows the use of all the monitoring functions by basic and advanced users without initiating the AED prompted protocol when the device is turned on. When needed, the AED mode prompted protocol can be initiated by pressing **ANALYZE**. In addition, access to Manual mode therapies—that is, manual defibrillation, sync cardioversion, or pacing—by unauthorized users can be restricted, if necessary.

For a description of how the device operates in Advisory Monitoring, see “Advisory Monitoring” in the *LIFEPAK 15 Monitor/Defibrillator Operating Instructions*.

If you want the LIFEPAK 15 monitor/defibrillator to operate in Advisory Monitoring when it is turned on, you must change several setup options in different menus:

1. In the Setup / Manual Mode menu, select **Manual Access**.
2. Select the desired AED / XXX option.
3. Press **HOME SCREEN**.
4. Select **Monitoring** and then select **Channels**.
5. Select **Set 1** and then select **Channel 1**.
6. Select **Lead II**.
7. Select **Previous Page**. Confirm that **Set 1** appears as the **Default Set**.

After you complete Steps 1–7, the monitor displays the status message **ADVISORY MODE-MONITORING** when it is turned on.

## CPR Metronome Setup

The Setup / CPR Metronome menu allows you to enable the CPR metronome and define the C:V (compression to ventilation) ratio for each Age-Airway setting. The C:V ratio is adjustable to provide different settings based on patient age and airway status and according to local medical protocols.

CPR metronome operates in these modes:

- AED mode—The device automatically provides “tocks” and ventilation prompts during CPR intervals at the C:V ratio set for **Adult - No Airway** in Table 8 below. During use in AED mode, the C:V ratio can not be changed.
- Manual mode—The metronome is activated during use by pressing **CPR**. A CPR metronome menu appears and the advanced user can adjust the C:V ratio at any time based on the patient’s age and airway status.

Definitions related to Age-Airway status:

- No Airway—No advanced airway in place (bag-mask ventilation).
- Airway—Advanced artificial airway in place, such as endotracheal tube, esophageal-tracheal combitube, or laryngeal mask airway.
- Youth—Pre-pubescent child.

**Note:** If all Age-Airway selections are set to the same C:V ratio (for example, **Adult - No Airway, Adult - Airway, Youth - No Airway**, and **Youth - Airway** all set to 10:1), the CPR metronome always provides “tocks” and ventilation prompts at this fixed ratio for both AED mode and Manual mode. In this situation, the CPR Metronome menu does not appear when **CPR** is pressed during use. The **CPR** button activates and deactivates the metronome at the fixed C:V ratio.

**Table 8** Setup / CPR Metronome Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Metronome	Enable metronome during CPR	Off or <b>On</b>
Adult - No Airway	Set Adult - No Airway compression/ventilation ratio	<b>30:2</b> , 16:1, 15:2, 12:1, 10:1, 100:0
Adult - Airway	Set Adult - Airway compression/ventilation ratio	30:2, 16:1, 15:2, 12:1, <b>10:1</b> , 100:0
Youth - No Airway	Set Youth - No Airway compression/ventilation ratio	30:2, 16:1, <b>15:2</b> , 12:1, 10:1, 100:0
Youth - Airway	Set Youth - Airway compression/ventilation ratio	30:2, 16:1, 15:2, 12:1, <b>10:1</b> , 100:0

During use, CPR time shown on the countdown timer may vary slightly when the CPR metronome is installed and set to **On**. When the CPR metronome is active during use, CPR times are adjusted to end CPR compression “tocks” on a full compression cycle. As a result, the CPR countdown timer shows CPR time that approximates the seconds selected in Table 7.

## Pacing Setup

The Setup / Pacing menu allows you to define noninvasive pacemaker default settings such as demand or nondemand pacing. This menu also allows you to enable the internal pacer detection to help identify patients who have implanted pacemakers.

For more information about internal pacemaker detection, see “Monitoring Patients Who Have Internal Pacemakers” in the *LIFEPAK 15 Monitor/Defibrillator Operating Instructions*.

**Table 9** Setup / Pacing Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Rate	Default pacing rate	40–170, <b>60</b> PPM Rotate and press <b>SPEED DIAL</b> to change numbers
Current	Default pacing current	<b>0</b> –200 mA Rotate and press <b>SPEED DIAL</b> to change numbers
Mode	Default pacing mode	Non-Demand or <b>Demand</b>
Internal Pacer	Detect internal pacemaker and print arrows	<b>Detection Off</b> or Detection On

## Monitoring Setup

The Setup / Monitoring menu allows you to define defaults for ECG, SpO<sub>2</sub>, NIBP, and CO<sub>2</sub> monitoring; to set the default settings for Channels 1, 2, and 3; and to enable the Trends feature.

For more information about any of these features, see Chapter 4, “Monitoring,” in the *LIFEPAK 15 Monitor/Defibrillator Operating Instructions*.

**Table 10** Setup / Monitoring Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Channels...	Set up default channel waveforms	See Table 11
Continuous ECG	Continuously store ECG waveform	Off or <b>On</b>
SpO2 Tone	SpO2 Pulse tone	<b>Off</b> or On
CO2...	Set up CO2 defaults	See Table 13
NIBP...	Set up NIBP defaults	See Table 14
Trends	Enable trending of vital signs	Off or <b>On</b> <sup>1</sup>

<sup>1</sup> If the monitor is used on a patient with **Trends** set to **Off**, and then after patient use **Trends** is set to **On**, Archive mode shows **Trend Summary** as a selection for patient reports, but no trend data is available.

## Channels Setup

The Setup / Monitoring / Channels and Setup / Monitoring / Channels / Set *n* menus allow you to define up to 5 waveform sets for Channels 1, 2, and 3, and to select the default set that displays when the device is turned on.

**Table 11** Setup / Channels Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Default Set	Select default waveform set	<b>SET 1</b>
Set 1	Select channel waveforms for Set 1	See Table 12
Set 2	Select channel waveforms for Set 2	See Table 12
Set 3	Select channel waveforms for Set 3	See Table 12
Set 4	Select channel waveforms for Set 4	See Table 12
Set 5	Select channel waveforms for Set 5	See Table 12

**Table 12** Setup / Monitoring / Channels / Set *n* Menu

MENU ITEM	HELP MESSAGE	OPTIONS <sup>1</sup>
Channel 1 <sup>2 3</sup>	Select waveform for Channel 1	Paddles, ECG Lead I, <b>ECG LEAD II</b> , ECG Lead III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6
Channel 2	Select waveform for Channel 2	<b>None</b> , Cascading ECG, ECG Lead I, ECG Lead II, ECG Lead III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6, CO2, P1, P2, SpO2
Channel 3	Select waveform for Channel 3	<b>None</b> , ECG Lead I, ECG Lead II, ECG Lead III, aVR, aVL, aVF, V1, V2, V3, V4, V5, V6, CO2, P1, P2, SpO2

<sup>1</sup> Only available leads appear as options.

<sup>2</sup> When a 3-lead cable is used, **Channel 1** displays only **ECG leads I, II, or III**, even if any other lead (except **Paddles** lead) is selected in setup.

<sup>3</sup> **Paddles** selection in **Channel 1** suppresses ECG lead selections in **Channels 2 and 3**.

## CO2 Setup

The Setup / Monitoring / CO2 menu allows you to define defaults for CO<sub>2</sub> monitoring.

**Table 13** Setup / Monitoring / CO2 Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Units	Set up CO2 units of measure	<b>mmHg</b> or %
BTPS	Apply body temperature correction factor to EtCO2 value	<b>Off</b> or On

## NIBP Setup

The Setup / Monitoring / NIBP menu allows you to define default settings for noninvasive blood pressure monitoring.

**Table 14** Setup / Monitoring / NIBP Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Initial Pressure	Set up default initial cuff pressure	180, <b>160</b> , 140, 120, 100, or 80 mmHg
Interval	Set up default NIBP interval	<b>Off</b> , 60, 30, 15, 10, 5, 3, 2 minutes



## 12-Lead Setup

The Setup / 12-Lead menu allows you to define defaults for 12-lead acquisition. The LIFEPAK 15 monitor uses the University of Glasgow 12-Lead ECG Analysis Program. For more information, ask your Physio-Control representative for a copy of the *Physio-Control Glasgow 12-Lead ECG Analysis Program Physician's Guide*.

**Table 15** Setup / 12-Lead Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Auto Transmit	Transmit automatically on acquisition	<b>Off</b> or On
Auto Print	Print automatically on acquisition	Off or <b>On</b>
Print Speed	Print speed for 3-Channel 12-Lead report	<b>25 mm/sec</b> or 50 mm/sec
Interpretation	Print 12-Lead interpretation	Off or <b>On</b>
Format	Set print format for 12-Lead reports	<b>3-Channel Standard</b> 4-Channel Standard 3-Channel Cabrera 4-Channel Cabrera

## Events Setup

The Setup / Events menu allows you to organize **EVENT** button predefined selections and create custom events. The Event menu appears when you press **EVENT** to annotate an event on the printed patient report. Twenty-one events are predefined, as shown in Table 1. Eighteen custom events can be added.

**Note:** The first item on the Event Page 1 menu is always **GENERIC**.

**Table 16** Setup / Events Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Events Page 1...	Select events for Page 1	Select events 2 to 11 from a predefined list.
Events Page 2...	Select events for Page 2	Select events 12 to 22 from a predefined list.
Custom Events...	Create custom events to use in event screen	Create up to 18 event names for inclusion as choices in the Page 1 and Page 2 events lists. <b>Note:</b> Resetting to defaults deletes a custom list.

## Alarms Setup

The Setup / Alarms menu allows you to set up alarm limits that are automatically enabled when the device is turned on.

**Table 17** Setup / Alarms Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Volume	Set volume for alarms, tones and voice prompts	Select volume level from gradient display. The minimum setting reduces volume but does not silence alarms.
Alarms	Enable or disable alarms at powerup	<b>Off</b> On (Enables alarms for all active vital signs whenever the monitor is turned on and valid data is available)
VF/VT Alarm	Alarms when VF or VT is detected	<b>Off</b> On (Enables <b>VF/VT alarm</b> whenever defibrillator is turned on)

**Note:** The **VF/VT alarm** is suspended when the noninvasive pacemaker is on, or when standard paddles are attached and **Paddles** lead is selected. The alarm is also suspended when the monitor/defibrillator is charging or is charged.

**Note:** When **Alarms** or **VF/VT Alarms** are set to **Off**, they may be enabled during use by pressing the **ALARMS** button and following the procedure described in the *LIFEPAK 15 Monitor/Defibrillator Operating Instructions*.

## Printer Setup

The Setup / Printer menu allows you to define which events are automatically printed during use, ECG frequency response, and additional waveforms to be included with the CODE SUMMARY report.

**Table 18** Setup / Printer Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Auto Print...	Specify auto print events	See Table 19
ECG Mode	Default ECG frequency response	Diagnostic or <b>Monitor</b>
Monitor Mode	Default monitor frequency response for printer and display	<b>1–30 Hz</b> or .5–40 Hz
Diagnostic Mode	Default diagnostic frequency response for printer	<b>.05–40 Hz</b> or .05–150 Hz
Alarm Waveforms	Print waveforms with alarm events in CODE SUMMARY	Off or <b>On</b>
Event Waveforms	Print waveforms with user-entered events in CODE SUMMARY	Off or <b>On</b>
Vitals Waveforms	Print waveforms with Vital Signs in CODE SUMMARY	<b>Off</b> or On

**Note:** For 12-lead ECG acquisitions only, if 15 years or less (pediatric age) is entered for patient age, the 12-lead ECG is automatically acquired at the diagnostic frequency response .05–150 Hz.

### Auto Print Setup

The Setup / Printer / Auto Print menu allows you to define which events are automatically printed when they occur during device use.

**Table 19** Setup / Printer / Auto Print Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Defibrillation	Auto print defibrillation events	Off or <b>On</b>
Pacing	Auto print pacing events	<b>Off</b> or On
Check Patient	Auto print Check Patient events	<b>Off</b> or On
SAS	Auto print SAS events	<b>Off</b> or On
Patient Alarms	Auto print patient alarms	<b>Off</b> or On
Events	Auto print operator annotated events	<b>Off</b> or On
Initial Rhythm	Auto print Initial Rhythm	<b>Off</b> or On

## Transmission Setup

For information about system requirements for transmitting patient reports, see “Data Transmission” in the *LIFEPAK 15 Monitor/Defibrillator Operating Instructions*.

The Setup / Transmission menu allows you to establish the settings necessary for transmission of patient records to destination sites.

**Note:** The following settings are not affected when you select **Reset Defaults** in the Setup Home Screen:

- Transmission sites
- Transmission default site
- Transmission default report
- Wireless setting

**Table 20** Setup / Transmission Setup Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Sites...	Set up data transmission sites	See Table 21
Default Site	Select default destination site	None. After sites are defined, select from the list.
Default Report	Select default report for data transmission	Snapshot, All, Code Summary, Trend Summary, Vital Signs, <b>12-Lead</b> , Continuous ECG
Wireless	Enable wireless communication	Off or <b>On</b>
Search Filter	Enable filtering of Bluetooth device searches	Off or <b>On</b>

## Transmission Sites Setup

The Setup / Transmission / Sites menu allows you to establish up to 72 destination sites for receiving patient reports.

**Table 21** Setup / Transmission / Sites Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Site 1...	Set up data transmission sites	See Table 22
Site 2...	Set up data transmission sites	See Table 22
Site 3...	Set up data transmission sites	See Table 22
Site 4...	Set up data transmission sites	See Table 22
Site 5...	Set up data transmission sites	See Table 22
Site menu items continue through Site 72		

## Transmission/Sites/Site *n* Setup

The Setup / Transmission / Sites / Site *n* menu allows you to name the selected site and select the port setting for transmitting data to that site.

**Table 22** Setup / Transmission / Sites / Site *n* Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Name...	Enter name for destination site	Select up to 14 characters
Output Port	Select preferred default transmission port	Bluetooth Wireless <b>Direct Connect</b> Both
Clear	Clear this site from site list	Select <b>Clear</b> to remove a site from the site list

**Note:** When you enter the name for a destination site, “Site *n*” changes to the new name and the site name is automatically added to the **Default Site** list.

**Note:** If you are using the LIFENET Cardiac Care System to route your data, **Name** must exactly match the name of the corresponding site within your LIFENET Cardiac Care System account.

**Note:** When **Output Port** is set to **Both** and you attempt a transmission, the LIFEPAK 15 monitor first tries to establish a wireless connection. If the wireless connection is unsuccessful, the monitor tries to establish a direct connection. If no connection is established, the transmission fails. We recommend that you set **Output Port** to **Bluetooth Wireless** for sites that you will transmit to using a wireless connection, and set **Output Port** to **Direct Connect** for sites that you will transmit to using a direct connection.

## Clock Setup

The Setup / Clock menu allows you to set the current date and time, and define default settings for the time display.

**Table 23** Setup / Clock Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Date/Time...	Set current date and time	Current date and time for Pacific Time
Clock Mode	Real or elapsed time shown on display	Elapsed time or <b>Real Time</b>
DST	Daylight savings time	<b>Off</b> or On If On, device automatically changes time to and from daylight savings time.
Time Zone	Select time zone for this device	<b>None</b> or Universal Time Code (UTC) for 74 time zones Rotate <b>SPEED DIAL</b> to select time zone

## Reset Defaults Setup

The Setup / Reset Defaults menu allows you to reset the device to all factory default settings except as noted below.

**Note:** You can not recover previous settings after you reset to factory default settings. So that you can restore device settings, if necessary, document your device settings in Table 1 on page 3 or use the Configuration Setup Tool to save the settings to a PC.

**Table 24** Setup / Reset Defaults Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Cancel...	Cancel and return to Setup Screen	Cancels reset operation
Reset	Resets unit setup to factory defaults (no recovery)	Resets setup options to the factory defaults, except for transmission menu entries, Service mode passcode, and the maintenance interval, which remain unchanged

## Print Defaults

The Print Defaults option allows you to print a listing of the current settings for the device. To print the defaults, select **Print Defaults**.

If the LIFEPAK 15 monitor/defibrillator receives service or repair that affects the internal memory components, any customized setup choices may be lost. So that you can restore device settings, if necessary, document your device settings in Table 1 on page 3 or use the Configuration Setup Tool to save the settings to a PC.

## Set Passcodes Setup

The Setup / Set Passcodes menu allows you to change the factory default passcode of 0000 that is used to enter Setup mode and to control access to patient records in Archive mode. If you change the passcode and then cannot remember it, you must contact Technical Support for assistance. In the USA, call 1.800.442.1142.

**Table 25** Setup / Set Passcode Menu

MENU ITEM	HELP MESSAGE	OPTIONS
Setup Mode...	Set passcode to enter Setup mode (The current passcode appears.)	<b>0000</b> Rotate the <b>SPEED DIAL</b> to select digits
Archives Access	Select passcode access for Archives mode	<b>No Passcode</b> , Archives Only, Delete Only, Archives/Delete
Archives Mode...	Set passcode to enter Archives mode	<b>0000</b> Rotate the <b>SPEED DIAL</b> to select digits
Delete Records...	Set passcode to delete records in Archives mode	<b>0000</b> Rotate the <b>SPEED DIAL</b> to select digits

## Service Mode

### WARNING

**POSSIBLE INEFFECTIVE ENERGY DELIVERY** Service mode is for authorized personnel only. Improper use of Service mode may inappropriately alter the device's configuration and may change energy output levels. Contact service personnel for assistance or information about device configuration.

Service mode contains tests and logs that are intended for service personnel. For specific information concerning access to Service mode, see the *LIFEPAK 15 Monitor/Defibrillator Service Manual*.







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