



Powering connections

BB424 User Guide

December 2017

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Patents

The BB424 is covered by patents as listed at <http://www.shoretel.com/about/patents.html>.

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Before You Start

The following sections provide an overview of the book:

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About This Book

This book is intended for those who use the BB424 in a MiCloud Connect or Mitel Connect ONSITE system. It describes the button box's features and explains how to use it.

Organization

This document is divided into the following chapters:

- Chapter 1, [Getting Started](#) on page 4, provides an overview of the BB424.
- Chapter 2, [Troubleshooting](#) on page 18, describes how to find the software version information for your BB424 in case you need it for diagnostic purposes and how to reboot the BB424.

Conventions

The following typographical conventions are used in this document:

Font	Description
Bold	Keys that you press on the BB424
Blue	Cross references with hyperlinks. Click the blue text to go to the indicated section. All chapters have a list of section links on the first page. Note: Table of Contents entries are also links, but they are not blue.

Related Documents

The following documents are also available:

- The *BB424 Safe Installation Guide* provides illustrations to show how to connect one, two, three, or four button boxes to an IP485g phone and how to adjust the tilt angle of the BB424.
- The *BB424 Quick Installation Guide* describes how to connect one, two, three, or four button boxes to an IP485g phone and how to adjust the tilt angle of the BB424. This document is available in English.

CHAPTER

1

Getting Started

This chapter provides an introduction to the BB424. It contains the following information:

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Overview of the BB424

Welcome to your BB424. [Figure 1](#) provides an overview of the BB424 components.

The BB424 works with the IP485g phone. The programmable buttons allow you to press one button for operations that would normally require pressing several buttons. For example, you could configure a button to speed-dial a particular extension or external number. A different button could be programmed for silent coach, and so on. The icons displayed for a programmed button show you the status of the target extension, which is especially useful for features such as monitored extensions or bridged call appearances.

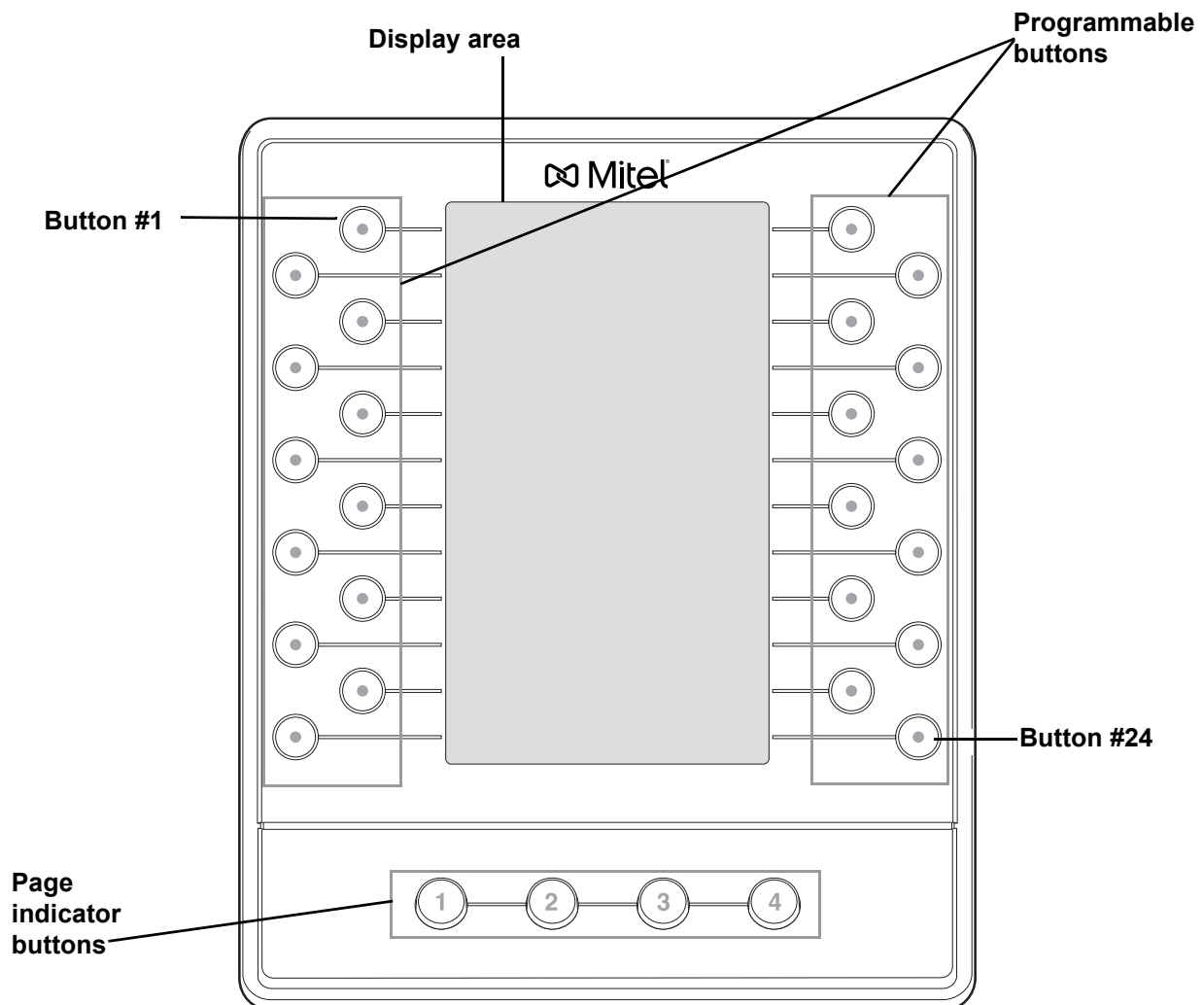


Figure 1: BB424

Setting up Your BB424 Devices

Before using your BB424 devices, make sure that they are properly installed.

Installing Button Boxes

Up to four BB424 devices can be connected to an IP485g phone. For details about how to connect one or more BB424s to an IP485g phone, see the *BB424 Safe Installation Guide* that was included in the box with your BB424.

If you have multiple button boxes installed, the order in which the button boxes are connected to the hardware ports on the back of the phone and the BB424s (as described in the *BB424 Safe Installation Guide*) determines the sequence of the BB424s as represented by the LEDs on the page indicator buttons at the bottom of each BB424. The page sequence LEDs for various BB424 configurations are shown in [Figure 2](#) on page 7.

Reducing Glare on the BB424 Screen

If glare makes it difficult to see the button box's display screen, you can adjust the tilt angle of the stand on the back of the BB424. Instructions are provided in the *BB424 Safe Installation Guide* packaged with your BB424.

Understanding Virtual Pages and Physical Devices

Each BB424 contains 24 physical buttons, but through the use of virtual pages you or your administrator can program up to 96 buttons, regardless of the number of physical devices installed. The 96 programmable buttons are provided through physical devices alone or through a combination of virtual pages and physical devices. With the seven programmable buttons on your IP485g phone, you can have a total of 103 custom buttons.

The numbered buttons below the display on the BB424 are page indicator buttons. Depending on your configuration, a page either represents a physical BB424 device or is a virtual page. If you have just one button box installed, the button box displays one page of buttons and gives you access to three virtual pages of buttons. If you have more than one button box installed, the pages are distributed across your devices. The last button box in the sequence includes any virtual pages not associated with a physical device. The possible configurations are illustrated in [Figure 2](#) on page 7.

Regardless of whether you have physical BB424 devices or virtual pages, you can always access up to four pages of programmed buttons. The advantage to having four physical BB424 devices is that you can see all the configured buttons at the same time. With other configurations, you must press a page button to see the programmed buttons on that page.

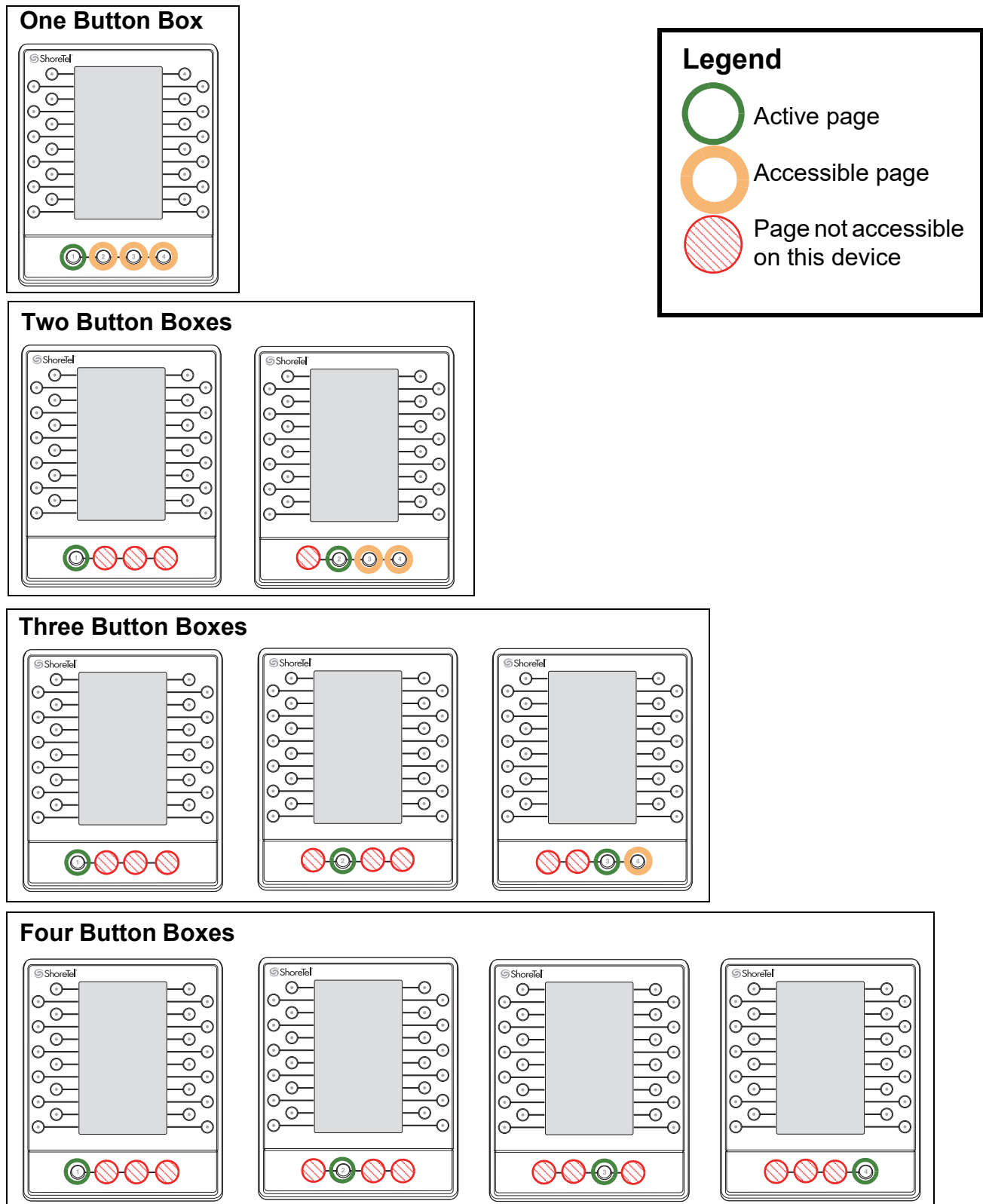


Figure 2: Page Indicator Button LEDs for Various BB424 Configurations

For example, if you have three BB424 devices installed, the pages of programmable buttons are distributed across your devices as follows:

- The first button box displays a green LED for the first page button, which indicates that page one is active. The other page indicator buttons are unlit, which indicates that you cannot access these pages from this device.
- The second button box shows the second page of programmed buttons. The second button box displays a green LED for the second page button, which indicates that this page of programmed buttons is active. The other page indicator buttons are unlit, which indicates that you cannot access these pages from this device.
- The third button box shows the third page (by default) of programmed buttons. The third page button is green, which indicates that this page of programmed buttons is active. The first and second page buttons are unlit. Because a fourth button box is not installed, the fourth page is virtual. The fourth page button displays an amber LED, which indicates that you can press the button to display the fourth page of programmed buttons.

The page indicator buttons display LEDs in various colors to reflect their status, as described in [Table 1](#). A green LED indicates which page of programmed buttons is currently displayed on the device. Amber LEDs indicate other pages of programmable buttons that are available on the device but not currently in focus. To bring a page into focus, press the page button for that page. The LED turns from amber to green to indicate that the page is in focus.

If you later add another BB424 device, the pages automatically re-sequence to reflect the new configuration, and the LEDs change accordingly.

Table 1: Page Indicator Button LEDs

LED Color	Description
Green	The page of programmed buttons is currently active (in focus).
Amber	The page of programmed buttons is accessible from the current device, but another page is currently active. Press this button to select the page.
Blinking Amber	The page of programmed buttons is accessible from the current device, and one or more extensions with a programmed button on the page has a call. Press this button to select the page.
Unlit	The page of programmed buttons is accessible from another BB424 device in your sequence of button boxes.

Operating Your BB424

The buttons on your BB424 operate similarly to the call appearance buttons on the IP485g phone. The information for any action that you perform using a BB424 button, such as pressing a speed dial button, is displayed on the phone screen.

Switching among BB424 Pages

- To switch from an active page to another page, press an amber page button.

The LED for the button turns green, which indicates that the page is active.

Guide to Status Icons and Blink Patterns

The BB424 displays various icons and LED colors and blink patterns to indicate call status. [Table 2](#) provides details.

Table 2: Programmed Button Icons and LED Colors and Blink Patterns











Icon	Button LED Color and Blink Pattern	Description
	Green, 1 second on/ 1 second off	The monitored extension has an incoming call.
	Green, steady	Dialing or off hook
	Green, steady	Connected call
	Red, steady	Whisper page is active
	Green, steady	Connected conference call
	Orange, 0.25 seconds on/ 0.25 seconds off	The call is on hold locally.
	Green, steady	The call is on hold remotely.
	Off	Programmed button (left)
	Orange, steady	The designated extension for the programmed button (left) has a "do not disturb" availability state active.
	Off	Programmed button (right)

Table 2: Programmed Button Icons and LED Colors and Blink Patterns (Continued)















Icon	Button LED Color and Blink Pattern	Description
	Orange, steady	The designated extension for the programmed button (right) has a “do not disturb” availability state active.
	Off	Monitored extension or bridged call appearance
	Orange, steady	The monitored extension has a “do not disturb” availability state active.
	Red, steady	The monitored extension has unheard voicemail messages.
	Orange, steady	The monitored extension has unheard voicemail messages and a “do not disturb” availability state active.
	Red, steady	The monitored extension is in a conference call.
	Red, steady	The monitored extension is in a connected call.
	Green .8 seconds/ orange .2 seconds	The monitored extension is in a connected call and you picked up an incoming call for the monitored extension.
	Green .8 seconds/ orange .2 seconds/green .1 seconds/orange .2 seconds	The monitored extension has a call on hold and you picked up an incoming call for the monitored extension.
	Orange, .2 seconds on/ .1 seconds off/.2 seconds on/.5 seconds off	The monitored extension is in a connected call and has a call on hold.
	Green, .2 seconds on/ .1 seconds off/ .7 seconds on/1 second off	The monitored extension is in a connected call and is receiving another call.

Table 2: Programmed Button Icons and LED Colors and Blink Patterns (Continued)

Icon	Button LED Color and Blink Pattern	Description
	Orange, .5 seconds on/.5 seconds off	The call is being recorded, and the recording operation was initiated by pressing the programmed button.
	Red, steady	The call is being recorded, and the recording operation was initiated through ST Communicator and the recording mailbox is not the user's own mailbox.
	Red, steady	Whisper page mute is active. When whisper page is active, the non-whisper active call can be muted (whisper page mute). The muted call shows this icon.

Configuring your BB424

The programmable buttons on your BB424 can be configured through the following methods:

- If your MiCloud Connect or Connect ONSITE administrator has granted you the necessary permissions, you can use your phone interface to configure programmable buttons to dial an extension or external number.
- Your MiCloud Connect or Connect ONSITE administrator can assign a variety of special functions such as call monitoring or silent coach to your programmable buttons. These functions are listed in [Table 3](#) on page 12.



Note

Because the features that you can configure for programmable buttons are a small subset of what your administrator can configure, take caution in programming a button that your administrator has already configured for a different function. If you want to return the button to the administrator's configuration, you will need the administrator's assistance.

To program buttons to dial a number:

1. On your IP485g phone, press the **Options** soft key.
2. Enter your voicemail password, and press the **OK** soft key.
The Options menu opens.
3. Press the ▼ navigation key to scroll to the **Program buttons** option.
4. With the **Program buttons** option highlighted, press the **Edit** soft key.
5. Press the BB424 button that you'd like to program.

6. Scroll to the **Dial number** option.
7. With the **Dial number** option highlighted, press the **Select** soft key.
8. Enter the number that you want to program the button to dial.

**Tip**

If you're programming a button to dial an external number, include the digit you would dial to get an external line before entering the 10-digit number. (Example: 9-512-222-3333)

9. Press the **Next** soft key.
10. Enter the label that you want displayed next to the button for that number.
11. Press the **Done** soft key.
12. Repeat steps 4-11 to program another button, or press the **Exit** soft key.

To clear programming for a button:

1. On your IP485g phone, press the **Options** soft key.
2. Enter your voicemail password, and press the **OK** soft key.
The Options menu opens.
3. Press the ▼ navigation key to scroll to the **Program buttons** option.
4. With the **Program buttons** option highlighted, press the **Edit** soft key.
5. Press the programmed button on your BB424 for which you want to remove the programmed functionality.
6. Scroll to the **Unused** option.
7. With the **Unused** option highlighted, press the **Select** soft key.
8. To return to the Options menu, press the **Exit** soft key.
9. Press the **Exit** soft key.

Table 3: Functions for Programmable Buttons

Feature Name	Description
Agent Login	If you are designated as an agent, you can use a programmed button to log in as an agent.
Agent Logout	If you are designated as an agent, you can use a programmed button to log out of your agent.
Agent Wrap-Up	If you are designated as an agent, you can use a programmed button to put your agent into wrap-up status.

Table 3: Functions for Programmable Buttons (Continued)

Feature Name	Description
Barge In	<p>You can join an in-progress call (“barge in”) as a conferenced participant. This feature is useful for operators, executive assistants, trainers, and workgroup supervisors.</p> <p>Included in this feature are some visual cues such as LED colors and a subset of simple icons that allow you to monitor the extension to a limited extent.</p>
Bridged Call Appearance/Shared Call Appearance	You can see call activity and interact with calls for another extension. This bridged information, which provides more detailed information than the Monitor Extension functionality, offers faster call handling between users. The call appearance button assigned to the targeted extension displays various icons and LED colors and blink patterns according to the type of call.
Call Move	If you have additional phones (for example, a home phone number or a mobile phone number), you can use a programmed button to move a call from one phone to another. For example, if you are participating in a conference call you can move the call from your desk phone to a cell phone and leave the office, without disrupting the conference call.
Centrex Flash	If you work in a small office that uses a limited number of analog Centrex lines, you can transfer a call to an external number in such a way that it frees lines in your system rather than occupying them with the transferred call.
Change CHM	You can use a programmed button to change your phone to a different call handling mode. The mode the phone switches to depends on how your administrator has configured the programmable button.
Change Default Audio Path	You can use a programmed button to change your default audio path to speaker, headset, or wireless headset, depending on how your administrator has configured it.
Conference Blind	You can initiate a blind conference call.
Conference Consultative	You can initiate a consultative conference call.
Conference Intercom	You can initiate a conference between by using the intercom.
Dial Mailbox	You can call another person’s voice mailbox directly without ringing their phone.
Dial Number (Speed Dial)	You can dial an extension or an external phone number.
Group Pickup	You can answer an incoming call for an extension that is part of a pickup group.

Table 3: Functions for Programmable Buttons (Continued)

Feature Name	Description
Hotline	You can initiate a hotline call, which is a ringdown circuit that connects to another number when you press the programmed button. Your administrator can configure the call as either a speed dial or an intercom connection.
Intercom	You can talk to another user through an intercom connection.
Malicious Call Trace	<p>If you suspect a malicious call, you can initiate a sequence of events to trace the call so that the source can be identified. After pressing the programmed button, your phone plays an audible tone to indicate that the malicious call trace process has been initiated, and then call recording begins. Recording is indicated with a beep that repeats every 15 seconds.</p> <p>The system provider is notified through the PSTN of the malicious nature of the call. This allows the system provider to take action, such as notifying legal authorities.</p>
Monitor Extension	You can monitor the extension of another user so that you can help manage calls for that extension. The call appearance button assigned to the targeted extension displays various icons, LED colors, and blink patterns according to the type of call. You might also be able to use the monitored extension button to quickly dial that extension, depending on how your administrator has configured the button.
Page	You can access the overhead paging extension at your site.
Park	You can park a call on another extension.
Park and Page	You can park a call on another extension and then access the overhead paging extension at your site.
Pickup	You can pick up an incoming call for another extension.
Pickup Night Bell	You can pick up a call from an extension that rings on an overhead speaker. This feature can be convenient for off-hours when a caller needs to speak with anyone at a site.
Pickup/Unpark	You can pick up a parked call from another extension
Record Call	You can record an active external call on your extension.
Record Extension	You can record an active external call on another person's extension. This feature is useful for users such as workgroup supervisors.
Silent Coach	You can listen to and coach someone during a call without the outside party hearing.

Table 3: Functions for Programmable Buttons (Continued)

Feature Name	Description
Silent Monitor	<p>You can silently monitor a call on another extension. You are added to the existing call without being heard or seen by any party. This feature is useful for users such as workgroup supervisors.</p> <p>Included in this feature are some visual cues such as LED colors and a subset of simple icons that allow you to monitor the extension to a limited extent.</p>
Toggle Handsfree	<p>You can toggle between enabling or disabling handsfree mode. When handsfree mode is enabled, dial tone is disabled so that you can use a headset or speakerphone to answer or make calls from your IP phone.</p>
Transfer Blind	<p>You can initiate a blind transfer of a call. Depending on how the programmed button is configured, pressing the button does one of the following:</p> <ul style="list-style-type: none"> ■ opens the Transfer to window so that you can enter an extension or phone number you want to transfer the call to ■ transfers the call to a particular extension ■ transfers the call to an external phone number.
Transfer Consultative	<p>You can consult with another party before transferring a call to that party. Depending on how the programmed button is configured, pressing the button does one of the following:</p> <ul style="list-style-type: none"> ■ opens the Transfer to window so that you can enter an extension or phone number you want to transfer the call to ■ transfers the call to a particular extension and lets you speak with the person before the call is transferred ■ transfers the call to an external phone number and lets you speak with the person before the call is transferred
Transfer Intercom	<p>You can transfer an intercom call that you receive to a designated extension.</p>
Transfer To Mailbox	<p>You can transfer a call to a user's voice mailbox.</p>
Transfer Whisper	<p>You can communicate with the user of a configured extension through the intercom before transferring a call to that extension.</p>
Unpark	<p>You can unpark a call that is parked or on hold on another extension.</p>

Table 3: Functions for Programmable Buttons (Continued)

Feature Name	Description
Whisper Page	You can enter a call on another extension and speak to the person without the other party hearing. The person can speak back to you privately through the whisper page mute feature.
Whisper Page Mute	If you receive a whisper page, you can press a programmed button to speak privately to the person who is speaking to you through the whisper page.

CHAPTER

2

Troubleshooting

This chapter provides information to help you diagnose and address problems with your BB424 devices. It contains the following information:

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Minimum Phone Firmware

The BB424 will not power up unless the IP485g phone is at the proper minimum firmware level.

Viewing BB424 Information

You can view information about your BB424 device, such as its IP address, its position in your sequence of BB424 devices, and its MAC address.

1. Press and hold the first and fourth page indicator buttons on the BB424 for three seconds.

The BB424 displays the Info menu with details about the BB424.

2. To advance to the next page of information, press the programmable button to the right of **Next**.

The second page of the Info menu is displayed.

3. To return the BB424 to normal operation, press the programmable button to the right of **Exit**.

The BB424 displays labels for your programmed buttons.

Rebooting Your BB424

If your administrator tells you to reboot your BB424 device, use this procedure.

1. Press and hold the first and fourth page indicator buttons on the BB424 for three seconds.

The BB424 displays the Info page.

2. To reboot your BB424, press the programmable button to the left of **Reset**.

The Reset button box confirmation page is displayed.

3. Press the programmable button to the left of **Reset**.

The BB424 reboots.

Troubleshooting a BB424 that Does Not Power Up

If one or more BB424s in your configuration do not power up, the button boxes might not be properly connected to the phone or the power source. For details about connecting BB424s, see the *BB424 Quick Installation Guide* or the *BB424 Safe Installation Guide*.