



IP5000 1.0 Series

VoIP Speakerphone

Installation & Setup

Administrator Guide



Code Blue

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TCP/IP Facilities

Customers may experience differences in product performance, reliability and security depending upon network configurations/design and topologies, even when the product performs as warranted.



2 Introduction

Thank you for choosing the Code Blue **IP5000** full duplex VoIP speakerphone, intercom and paging device for indoor and outdoor applications. This speakerphone is part of our Emergency Signaling group of products built to meet the latest regulations, withstand the harshest elements and be proactive solutions for when you need them most. This guide provides basic and advanced configuration information for obtaining the best performance with the **IP5000** speakerphone.



IP5000 Single Button



IP5000 Dual Button



IP5000 Dual Button w/ Keypad



3 Getting Started

This chapter provides basic installation instructions and information for obtaining the best performance with the IP5000 speakerphone. It is strongly recommended that the entire guide is read before configuring your IP5000 speakerphone to ensure you get maximum performance.

Throughout this guide you will see the following two references:

Caller: This is the person activating the IP5000 speakerphone by pressing a button or activating the auxiliary input.

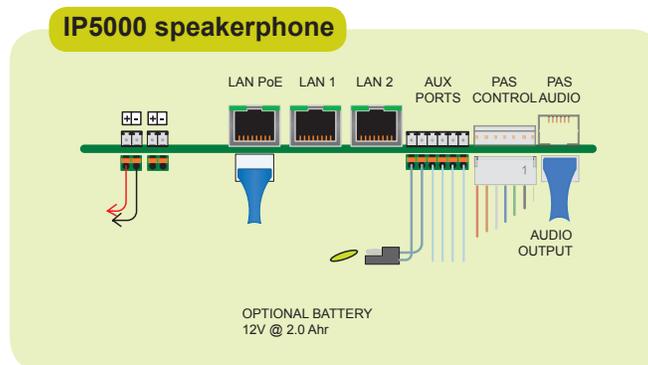
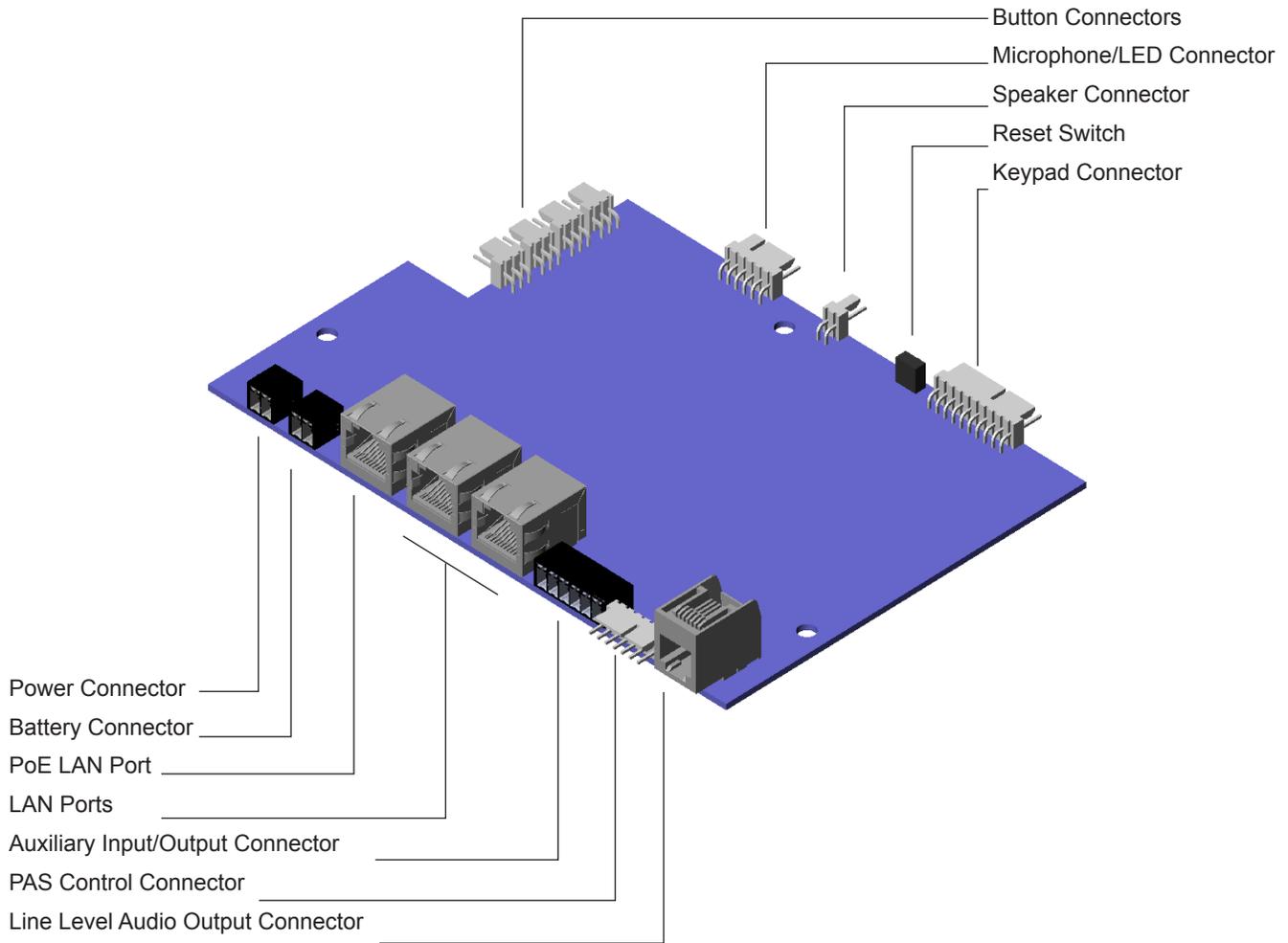
Callee: This is the person receiving the call from the IP5000; typically a guard, 911 operators, dispatch officer, etc.

The IP5000 speakerphone provides powerful, yet flexible IP emergency communications, delivering excellent voice quality for your emergency speakerphone, intercom and paging solution.



3.1 Connectors, Ports and Switch List

The IP5000 speakerphone comes with your choice of single button, dual button or dual button with keypad faceplate. The internal components consist of a speaker, microphone, PCB and mounting hardware.





3.2 Installing the IP5000

The IP5000 speakerphone is capable of being connected to PoE (802.11af), 12-24 Volts DC or 12-24 Volts AC power sources. Additionally, the IP5000 may also be configured with a 12 Volts DC battery backup system, which monitors and reports on the battery voltage for ensured up time.

The IP5000 speakerphone has three Ethernet switch ports, one PoE LAN and two non-PoE LANs available for connectivity to network services and for additional network connectivity for auxiliary devices such as IP cameras, card readers, etc.

The IP5000 speakerphone has two normally open auxiliary output contacts for connecting devices such as the LED beacon/strobe, camera preset activation inputs, third party controllers, etc. There is also one normally open auxiliary input contact closure for connecting devices such as door contacts, relays, etc., which can be programmed to perform any function of the phone.

The IP5000 speakerphone has been designed to be mounted in any Code Blue enclosure. Custom faceplates are available for mounting in other product enclosures. Contact your local dealer for additional information and availability of custom options.

Typical IP5000 Speakerphone Uses

ToolVox® Communi-
cation Manager



Network switch



Secure Mesh
or 802.11g
IP wireless



CB 2-e with
Public Address



CB 4-u



Ip desk phones



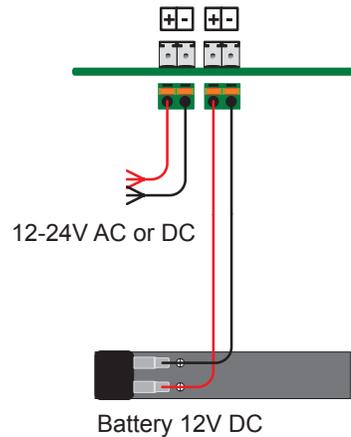
CB 1-s with
Public Address





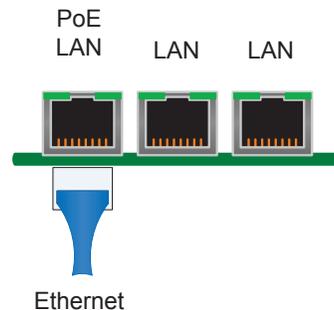
Connecting Power Sources

The IP5000 speakerphone is capable of being connected to any power source that provides 12-24 Volts AC or DC with a minimum of 430 mA current rating. An optional battery can be connected to the secondary power input and the IP5000 speakerphone will monitor the battery for low voltage conditions, typically utilized in solar or NightCharge® applications. It is strongly recommended that you disconnect any power to the unit prior to installation. Consult your local electrician for proper power connectivity to your Code Blue equipment.



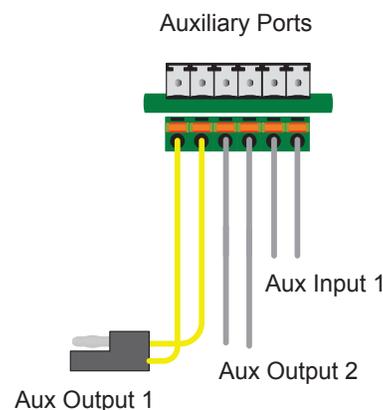
Connecting Network Services

The IP5000 speakerphone has one PoE switch port for connectivity to existing networks and two additional Ethernet switch ports for connectivity of auxiliary Ethernet based devices such as IP cameras, card readers, etc.



Connecting Network Devices

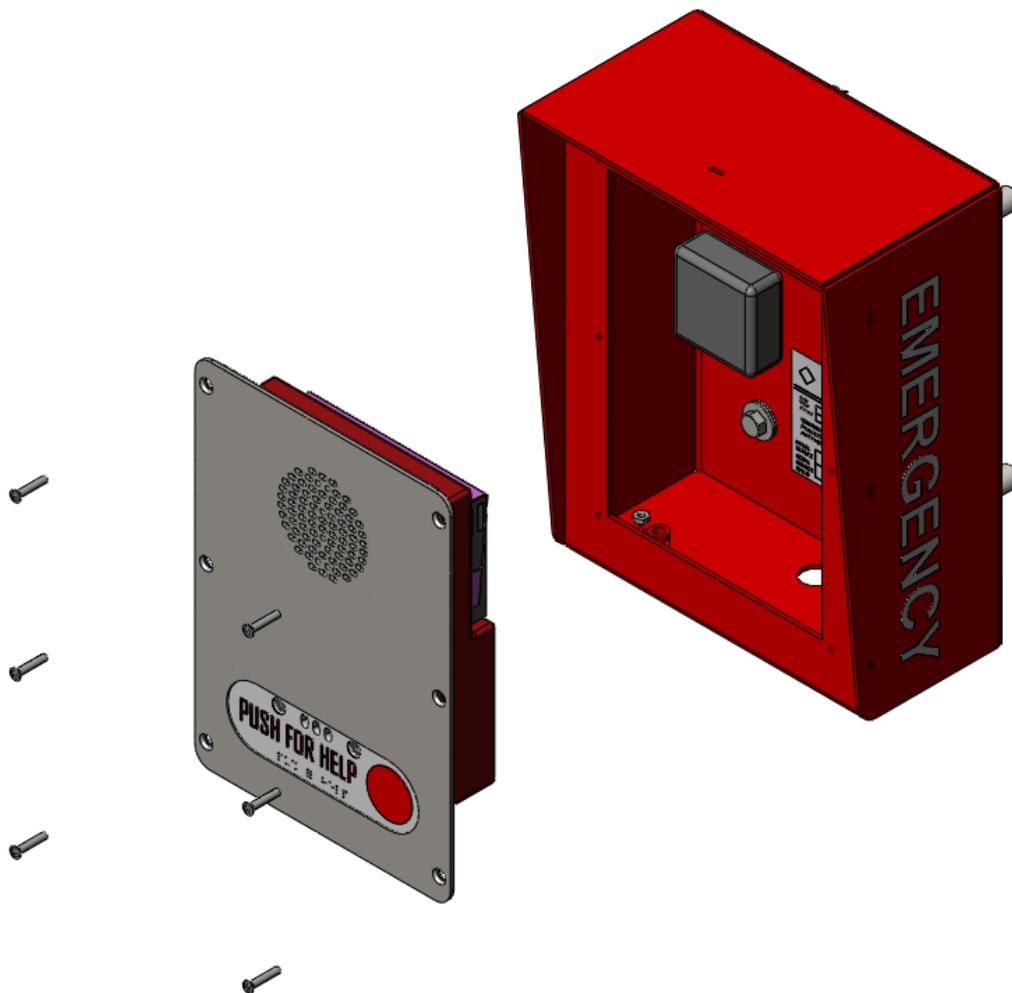
The IP5000 speakerphone analog auxiliary connections are two normally open outputs and one normally open input. Typically, any Code Blue unit with an LED beacon/strobe will have the trigger connected to Auxiliary Output 1. The Auxiliary Outputs can be programmed to be active during a call or by entering a specific time period. The Auxiliary Input can be programmed to perform any script entered into the phone.





Installation into Code Blue Units

The IP5000 speakerphone is designed to fit into any existing or new Code Blue unit enclosure. It is a direct replacement for the InterAct analog series: IA2000, IA3000, IA3100 and IA4100. Additionally, Code Blue offers custom faceplate designs allow the IP5000 to be placed in many different enclosure types. Code Blue provides six custom security screws and security bits with each Code Blue unit for attaching the IP5000 speakerphone. Consult your unit installation instructions for further information.





4 Configuring the Network Settings

The IP5000 speakerphone comes equipped with one PoE LAN port and two non-PoE LAN ports. The IP5000 speakerphone can be configured for DHCP or Static IP addressing. The additional 10/100 Ethernet LAN ports can be utilized for connectivity of auxiliary IP-based devices such as IP cameras, card access readers, etc.

4.1 Connecting to the IP5000 for the first time

The IP5000 speakerphone will be configured via DHCP by default.

The IP5000 speakerphone may also be configured via TFTP server which can be set up in your DHCP configuration.

1. Connect the IP5000 speakerphone to your network and connect power. The green **Call Placed** LED and red **Call Received** LED will flash momentarily and an audible beep will be heard out of the speaker when the unit is ready for use.

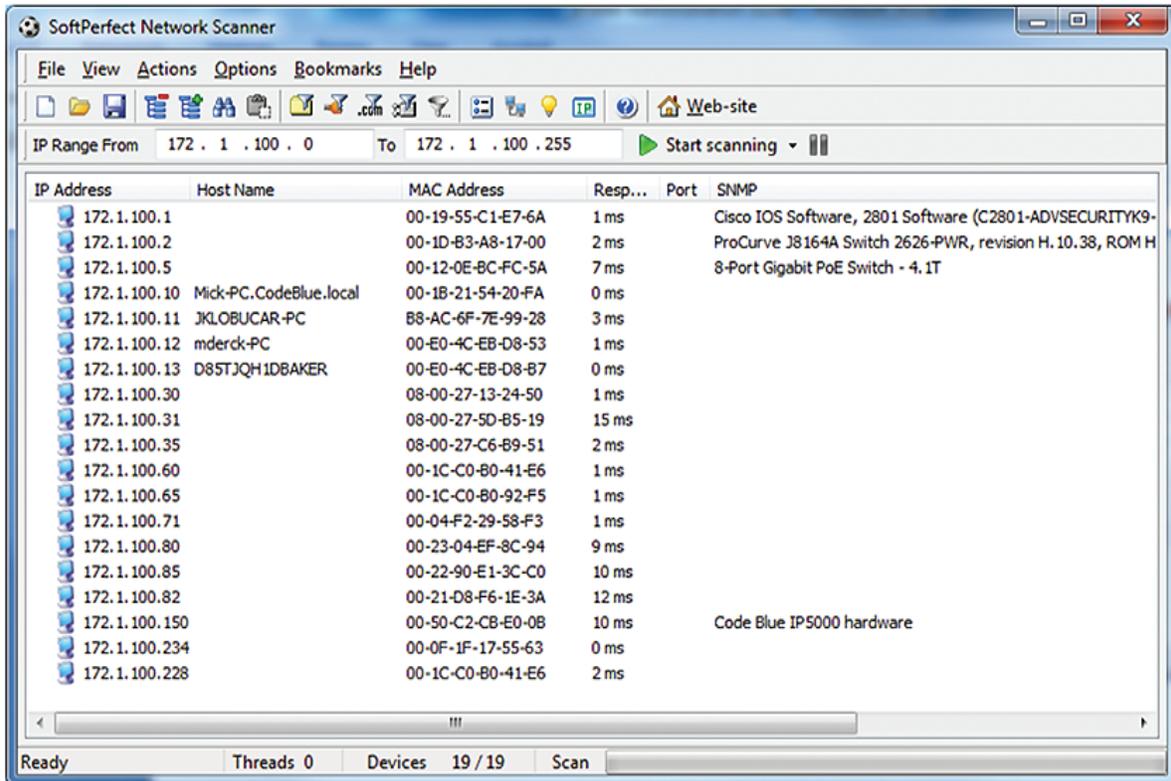
The IP5000 speakerphone will acquire IP Network settings from your DHCP server.

2. Check your DHCP lease records or utilize a network scanner such as SoftPerfect Network Scanner to match the MAC address of the IP5000 speakerphone to the correct IP address in your lease table or output of the network scanner.
3. Once you have obtained the IP address, you can connect to the IP5000 speakerphone via https://IP5000_IP_Address.
4. The default **username** is “admin” and the default **password** is “admin”.



Lease Table and Network Scanner Example

IP Address	Ethernet	Hostname	Start Date	End Date
172.1.100.234	00:0f:1f:17:55:63	IP5000	2010/09/29 04:52:45	2010/09/29 16:52:45
172.1.100.228	00:1c:c0:b0:41:e6	IP5000	2010/09/29 05:26:40	2010/09/29 17:26:40
172.1.100.238	00:1c:c0:b0:3a:20	IP5000	2010/09/29 09:17:08	2010/09/29 21:17:08
172.1.100.234	00:0f:1f:17:55:63	IP5000	2010/09/29 09:53:35	2010/09/29 21:53:35





DHCP Network Configuration

The IP5000 speakerphone is DHCP enabled by default.

1. Consult your network administrator if you are having trouble obtaining an IP address via DHCP.
2. If you are utilizing Code Blue's ToolVox® Media Gateway, consult the Administrator Guide at <http://codeblue.com/resources/admin-guides/>.
3. Additional support for setting up a DHCP server on Code Blue's ToolVox Media Gateway is provided as a paid service by Code Blue Technical Support.

IP5000 Configuration

WAN setup

Status	General	
◦ System	Host	<input type="text" value="CodeBlue"/>
Network Setup	Domain	<input type="text" value="CodeBlue"/>
◦ Network	Connection Type	<input checked="" type="radio"/> Dynamic IP <input type="radio"/> Static IP
VoIP Setup	VLAN	
◦ Account	VLAN	<input type="checkbox"/> Enabled
◦ Media	ID	<input type="text" value="4"/> (value: 0 to 4094)
◦ Security	User Priority	<input type="text" value="0 - Best Effort"/> (default: 0)
◦ Advanced	<input type="button" value="Save Changes"/>	
System		
◦ Administration		
◦ Date/Time		
◦ Backup/Restore		
◦ Upgrade Firmware		
◦ Logout		
Code Blue - Configuration		
◦ Batch Configuration		
◦ Numbers		
◦ Recordings		
◦ General Settings		
◦ Hardware Settings		
◦ Action Scripts		
◦ Diagnostic Settings		

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Static Network Configuration

Once you have obtained the DHCP address of the IP5000 speakerphone you can log in and set a static IP address.

1. Click on the **Network** menu item under **Network Setup** (see far left-hand column).
2. Under **General**, click on **Static IP** for **Connection Type**.
3. Enter your desired IP settings under **Static IP Address**.
4. Once you have entered your settings, click on **Save Changes**.

IP5000 Configuration

WAN setup

Status	General		
◦ System	Host	<input type="text" value="CodeBlue"/>	
Network Setup	Domain	<input type="text" value="CodeBlue"/>	
◦ Network	Connection Type	<input type="radio"/> Dynamic IP <input checked="" type="radio"/> Static IP	
VoIP Setup	Static IP Address		
◦ Account	Address	<input type="text" value="172"/> . <input type="text" value="1"/> . <input type="text" value="100"/> . <input type="text" value="100"/>	
◦ Media	Mask	<input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="255"/> . <input type="text" value="0"/>	
◦ Security	Default Router	<input type="text" value="172"/> . <input type="text" value="1"/> . <input type="text" value="100"/> . <input type="text" value="1"/>	
◦ Advanced	DNS Primary	<input type="text" value="4"/> . <input type="text" value="2"/> . <input type="text" value="2"/> . <input type="text" value="3"/>	
System	DNS Secondary	<input type="text" value="4"/> . <input type="text" value="2"/> . <input type="text" value="2"/> . <input type="text" value="4"/>	
◦ Administration	DNS Tertiary	<input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/> . <input type="text" value="0"/>	
◦ Date/Time	VLAN		
◦ Backup/Restore	VLAN	<input type="checkbox"/> Enabled	
◦ Upgrade Firmware	ID	<input type="text" value="4"/>	(value: 0 to 4094)
◦ Logout	User Priority	<input type="text" value="0 - Best Effort"/>	(default: 0)
Code Blue - Configuration	<input type="button" value="Save Changes"/>		
◦ Batch Configuration			
◦ Numbers			
◦ Recordings			
◦ General Settings			
◦ Hardware Settings			
◦ Action Scripts			
◦ Diagnostic Settings			

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VLAN Configuration

The IP5000 speakerphone is capable of performing IEEE 802.1Q frame tagging and user priority settings.

1. Click on the **Network** menu item under **Network Setup** (see far left-hand column).
2. Click on the **VLAN Enabled** check box in the **VLAN** section and select your desired **VLAN ID** and **User Priority**.
3. Once you have entered your settings, click on **Save Changes**.

The screenshot shows the 'IP5000 Configuration' interface, specifically the 'WAN setup' section. On the left is a navigation menu with categories: Status, Network Setup, VoIP Setup, System, and Code Blue - Configuration. The 'Network Setup' section is active, and 'Network' is selected. The main area is titled 'WAN setup' and is divided into 'General' and 'VLAN' sections. In the 'General' section, 'Host' and 'Domain' are both set to 'CodeBlue'. 'Connection Type' is set to 'Static IP'. The 'Static IP Address' section contains fields for Address (172.1.100.100), Mask (255.255.255.0), Default Router (172.1.100.1), DNS Primary (4.2.2.3), DNS Secondary (4.2.2.4), and DNS Tertiary (0.0.0.0). In the 'VLAN' section, the 'VLAN' checkbox is checked 'Enabled', the 'ID' is set to 4, and the 'User Priority' dropdown menu is open, showing options from 0 to 7. The '0 - Best Effort' option is currently selected. A 'Save Changes' button is located at the bottom right of the configuration area.



5 Configuring the VoIP Settings

The IP5000 speakerphone is an advanced VoIP device capable of connectivity to VoIP systems via SIP and IAX2 protocols. Advanced SIP negotiation options are available to provide enhanced security of your VoIP calls. Built-in codecs provide multiple options for communicating with your VoIP system or Code Blue's ToolVox Media Gateway. STUN server capabilities are also built-in for helping traverse firewalls when connecting the unit outside of the hosting network.



5.1 Configuring a SIP Account 1

The IP5000 speakerphone is capable of connecting to VoIP systems via the SIP protocol.

1. Click on the **Account** menu item under **VoIP Setup** (see far left-hand column).
2. Click on the **SIP & RTP** radial button for **VoIP Protocol** under **VoIP Server**.
3. Enter all appropriate information under **SIP Configuration**, **Additional Settings**, **Proxy Authentication** and **VLAN User Priorities**.
4. Once this information is entered, select **Save Changes**.

The Register keep-alive will send out a REGISTER request every 30 seconds. The REGISTER request does not have a timeout of 30 seconds, however. The timeout value will be the value that was set up on the account webpage. Beyond just being a keep-alive mechanism, the Register keep-alive has the side effect of quickly re-registering a user if the server rebooted before the Register timeout expires. The Register keep-alive will be authorized by the server, forcing some extra traffic (421 response and a second REGISTER request with authentication credentials).

The Options keep-alive sends an OPTIONS request to the server every 30 seconds. This request requires the server to respond with a list of what SIP extensions it supports. Often, however, the server will respond with an error like 424. This error is ignored since the point of this keep-alive is to send traffic through the NAT, and what is sent is inconsequential. The Options keep-alive is seldom authorized, so it has less traffic overhead than the Register keep-alive.

IP5000 Configuration	
VoIP Account	
Status	VoIP Server
• System	VoIP Protocol <input checked="" type="radio"/> SIP & RTP <input type="radio"/> IAX
Network Setup	SIP Configuration
• Network	Username/Number 560
VoIP Setup	Display Name 560
• Account	Domain 172.1.100.65
• Media	Registrar 172.1.100.65 <input checked="" type="checkbox"/> auto-configure
• Security	Registrar Port 0 (advanced; set to 0 for auto detect)
• Advanced	Additional Settings
System	Outbound Proxy (leave blank if same as registrar)
• Administration	Outbound Proxy Port 0 (advanced; set to 0 for auto detect)
• Date/Time	Registration Lifetime 3600 seconds
• Backup/Restore	RTP Base Port 23456
• Upgrade Firmware	Keep-Alive Options Request (advanced)
• Logout	STUN <input type="checkbox"/> Enabled
Code Blue – Configuration	Proxy Authentication
• Batch Configuration	Username 560
• Numbers	Password ••••••••
• Recordings	VLAN User Priorities
• General Settings	SIP 0 - Best Effort (default: 0)
• Hardware Settings	RTP Audio 6 - Voice < 10ms latency and jitter (default: 6)
• Action Scripts	<input type="button" value="Save Changes"/>
• Diagnostic Settings	

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5.2 Configuring an IAX Account 1

The IP5000 speakerphone is capable of connecting to VoIP systems via the IAX protocol.

1. Click on the **Account** menu item under **VoIP Setup** (see far left-hand column).
2. Click on the **IAX** radial button for **VoIP Protocol** under **VoIP Server**.
3. Enter the appropriate settings under **IAX Configuration** and **Registrar Configuration**.
4. Upon completion, click **Save Changes** button.

IP5000 Configuration

VoIP Account

Status	VoIP Server	
▫ System	VoIP Protocol	<input type="radio"/> SIP & RTP <input checked="" type="radio"/> IAX
Network Setup	IAX Configuration	
▫ Network	Username/Number	<input type="text" value="560"/>
VoIP Setup	Display Name	<input type="text" value="560"/>
▫ Account	Domain	<input type="text" value="172.1.100.65"/>
▫ Media	Registrar Configuration	
▫ Security	Registrar	<input type="text" value="172.1.100.65"/> <input checked="" type="checkbox"/> auto-configure
▫ Advanced	Registrar Port	<input type="text" value="0"/> (advanced; set to 0 for auto detect)
System	Username	<input type="text" value="560"/>
▫ Administration	Password	<input type="password" value="••••••••"/>
▫ Date/Time	Registration Lifetime	<input type="text" value="3600"/> seconds
▫ Backup/Restore	<input type="button" value="Save Changes"/>	
▫ Upgrade Firmware		
▫ Logout		
Code Blue – Configuration		
▫ Batch Configuration		
▫ Numbers		
▫ Recordings		
▫ General Settings		
▫ Hardware Settings		
▫ Action Scripts		
▫ Diagnostic Settings		

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5.3 Configuring a SIP Account 2

The IP5000 Emergency Phone is capable of connecting to VoIP systems via the SIP protocol to a second SIP Account. Click on the Account 2 menu item under the VoIP Setup, then click on the SIP & RTP radial button next to Mode. Enter your SIP Configuration settings, Additional Settings, Proxy Authentication and VLAN User Priorities. Once this information is entered, click on Save Changes.

The dual account option allows for failover. If one of the servers is off-line or down, the IP5000 will still be operable.

IP5000 Configuration

Account 2

Status	Account Type	
◦ System	VoIP Protocol <input type="radio"/> Disabled <input checked="" type="radio"/> SIP & RTP <input type="radio"/> IAX	
Network Setup	SIP Configuration	
◦ Network	Username/Number <input type="text" value="570"/>	
VoIP Setup	Display Name <input type="text" value="570"/>	
◦ Account 1	Domain <input type="text" value="172.1.100.64"/>	
◦ Account 2	Registrar <input type="text" value="172.1.100.64"/> <input checked="" type="checkbox"/> auto-configure	
◦ Media	Registrar Port <input type="text" value="0"/> (advanced; set to 0 for auto detect)	
◦ Security	Additional Settings	
◦ Advanced	Outbound Proxy <input type="text"/> (leave blank if same as registrar)	
System	Outbound Proxy Port <input type="text" value="0"/> (advanced; set to 0 for auto detect)	
◦ Administration	Registration Lifetime <input type="text" value="3600"/> seconds	
◦ Date/Time	RTP Base Port <input type="text" value="23556"/>	
◦ Backup/Restore	Keep-Alive <input type="text" value="Options Request"/> (advanced)	
◦ Upgrade Firmware	STUN <input type="checkbox"/> Enabled	
◦ Logout	Proxy Authentication	
Code Blue – Configuration	Username <input type="text" value="570"/>	
◦ Batch Configuration	Password <input type="password" value="••••••••"/>	
◦ Numbers	VLAN User Priorities	
◦ Recordings	SIP <input type="text" value="0 - Best Effort"/> (default: 0)	
◦ General Settings	RTP Audio <input type="text" value="6 - Voice < 10ms latency and jitter"/> (default: 6)	
◦ Hardware Settings	<input type="button" value="Save Changes"/>	
◦ Action Scripts	copyright © 2011 Code Blue	
◦ Diagnostic Settings		



5.4 Configuring an IAX Account 2

The IP5000 Emergency Phone is capable of connecting to VoIP systems via the IAX protocol to a second IAX account. Click on the Account 2 menu item under the VoIP Setup, then click on the IAX radial button next to Mode. Enter your IAX Configuration settings and Registrar Configuration. Once this information is entered, click on Save Changes.

The dual account option allows for failover. If one of the servers is off-line or down, the IP5000 will still be operable.

IP5000 Configuration

Account 2

Status	Account Type	
◦ System	VoIP Protocol	<input type="radio"/> Disabled <input type="radio"/> SIP & RTP <input checked="" type="radio"/> IAX
Network Setup	IAX Configuration	
◦ Network	Username/Number	<input type="text" value="570"/>
VoIP Setup	Display Name	<input type="text" value="570"/>
◦ Account 1	Domain	<input type="text" value="172.1.100.64"/>
Account 2	Registrar Configuration	
◦ Media	Registrar	<input type="text" value="172.1.100.64"/> <input checked="" type="checkbox"/> auto-configure
◦ Security	Registrar Port	<input type="text" value="0"/> (advanced; set to 0 for auto detect)
◦ Advanced	Username	<input type="text" value="570"/>
System	Password	<input type="password" value="••••••••"/>
◦ Administration	Registration Lifetime	<input type="text" value="3600"/> seconds
◦ Date/Time	<input type="button" value="Save Changes"/>	
◦ Backup/Restore		
◦ Upgrade Firmware		
◦ Logout		
Code Blue - Configuration		
◦ Batch Configuration		
◦ Numbers		
◦ Recordings		
◦ General Settings		
◦ Hardware Settings		
◦ Action Scripts		
◦ Diagnostic Settings		

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5.5 Configuring Media Settings

The IP5000 speakerphone is capable of utilizing various codecs for communicating with VoIP systems and services.

1. To configure which codecs the IP5000 speakerphone uses click on **Media** under the **VoIP Setup** section (see far left-hand column).
2. If you want the IP5000 to perform **Silence Suppression**, select **Enabled** check box.
3. Highlight the desired codec in the **Available** list box and click the **Add >>** button to add them to the **Preferred** box.
4. Use the **Move Up** and **Move Down** buttons to ensure the codec is in the correct priority order from top to bottom.
5. Highlight a codec in the **Preferred** box and click the **<< Remove** button to remove the codec as an option.
6. Once all information is entered, click **Save Changes**.

IP5000 Configuration

VoIP Media

Status	Features
System	Silence Suppression <input checked="" type="checkbox"/> Enabled
Network Setup	Codec Selection
VoIP Setup	
Account	
Media	
Security	
Advanced	
System	
Administration	
Date/Time	
Backup/Restore	
Upgrade Firmware	
Logout	
Code Blue – Configuration	
Batch Configuration	
Numbers	
Recordings	
General Settings	
Hardware Settings	
Action Scripts	
Diagnostic Settings	

Available

- G.711 uLaw
- G.711 aLaw
- G.726 fixed payload
- G.726 (16kbps)
- G.726 (24kbps)
- G.726 (32kbps)
- G.726 (40kbps)
- G.722
- G.729
- DVI4 Narrowband

Preferred

- G.711 uLaw
- G.711 aLaw
- DVI4 Narrowband
- DVI4 Wideband

Buttons: Add >>, << Remove, Move Up, Move Down, Save Changes

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5.6 Configuring Security Settings

The IP5000 speakerphone is capable of providing advanced SIP and RTP security.

1. Click on **Security** under the **VoIP Setup** section (see far left-hand column) to configure these settings.
2. Enter the desired settings for **Negotiation Options**, **Advanced Options** and **SRTP Crypto Suite Selection**.
3. Under **SRTP Crypto Suite Selection**, highlight the desired Encryption in the **Available** box.
4. Click the **Add >>** button to add them to the Preferred box.
5. Use the **Move Up** and **Move Down** buttons to ensure the Encryption is in the correct priority order from top to bottom.
6. Highlight an Encryption in the **Preferred** box and click the **Remove** button to remove the Encryption as an option.
7. Once this information is entered, click **Save Changes**.

IP5000 Configuration

VoIP Security

Status	Negotiation Options	
▫ System	SIPS Security	Disabled (default: Disabled)
Network Setup	SRTP Security	Disabled (default: Disabled)
▫ Network	SRTP Encryption	Prefer OFF (default: Prefer OFF)
VoIP Setup	SRTP Authentication	Prefer OFF (default: Prefer OFF)
▫ Account	SRTCP Encryption	Prefer OFF (default: Prefer OFF)
▫ Media	Advanced Options	
▫ Security	MKI	<input type="checkbox"/> Enabled
▫ Advanced	Key Lifetime	0 packets (min: 1024; 0 for max)
System	SRTP Crypto Suite Selection	
▫ Administration	Available	Preferred
▫ Date/Time	AES_CM_128_HMAC_SHA1_80	AES_CM_128_HMAC_SHA1_80
▫ Backup/Restore	AES_CM_128_HMAC_SHA1_32	AES_CM_128_HMAC_SHA1_32
▫ Upgrade Firmware	Add >>	Move Up
▫ Logout	<< Remove	Move Down
Code Blue	Save Changes	
▫ Batch Configuration	copyright © 2010 Code Blue	
▫ Numbers		
▫ Recordings		
▫ General Settings		
▫ Hardware Settings		
▫ Action Scripts		
▫ Diagnostic Settings		



5.7 Configuring Advanced Settings

The IP5000 speakerphone can be configured to utilize a STUN server for transversal of firewall devices for the setup of a VoIP call.

1. Click on **Advanced** under **VoIP Setup** (see far left-hand column) to configure the STUN server IP address and Port.
2. Under **Security Options** select the type of certificates the IP5000 should accept.
3. Upon completion, click **Save Changes**.

IP5000 Configuration

Advanced Settings

Status

- System

Network Setup

- Network

VoIP Setup

- Account
- Media
- Security
- Advanced**

System

- Administration
- Date/Time
- Backup/Restore
- Upgrade Firmware
- Logout

Code Blue

- Batch Configuration
- Numbers
- Recordings
- General Settings
- Hardware Settings
- Action Scripts
- Diagnostic Settings

STUN

Server

Port (advanced)

Security Options

Certificates (default: Trusted only)

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6 Configuring the System Settings

The IP5000 speakerphone system administration is provided for under the System Settings, which allows you to change the administrative logon credentials, date and time, NTP server settings, as well as perform system backup/restore functions and firmware upgrades.



6.1 System Administration Settings

The IP5000 speakerphone system information, administrative logon/password change and secure HTTP server certificate are managed by:

1. Clicking **Administration** under **System** (see far left-hand column).
The **System Info** section will display the Serial number, MAC Address and Firmware Version of the IP5000 speakerphone.
2. Under **Administrator**, enter a new **Username** and **Password** to change the default User name/Password for system access.
3. Once a new Username/Password has been entered, click on **Save Credentials** to apply the new settings.
4. To change the **Private Key**, click on **Select private key file** link under **Secure HTTP Server**.
5. Click on **Upload Key**.
6. To change the **Certificate**, click on **Select certificate file** link.
7. Click on **Upload Certificate**.

The screenshot shows the 'IP5000 Configuration' web interface. The main heading is 'Administration'. On the left is a navigation menu with categories: Status, Network Setup, VoIP Setup, Account, Media, Security, Advanced, System, Code Blue, and Diagnostic Settings. The 'System' category is expanded, showing 'Administration' as the selected option. The main content area is divided into sections: 'System info' (Serial: UnicoiDevice007, MAC Address: 00-50-C2-CB-E0-0B, Firmware Version: 1.0.3 (Sep 20 2010 11:41:49)), 'Administrator' (Username: admin, Password: masked, Confirm: empty), and 'Secure HTTP Server' (Private Key: Select private key file, Upload Key; Certificate: Select certificate file, Upload Certificate). A 'Save Credentials' button is located below the Administrator section. The footer contains 'copyright © 2010 Code Blue'.



6.2 Date and Time Configuration

The IP5000 speakerphone date and time are managed by:

1. Clicking **Date/Time** under **System** (see far left-hand column).
2. Under the **Set Date & Time** section you can manually set the Date, Time, Daylight Savings (if applicable) and Time Zone.
3. To automatically synchronize with an NTP (Network Time Protocol) server, check **Enabled** and enter the IP or URL of the NTP server (i.e., **Server Address**).
4. Click **Save Changes**.

The screenshot shows the 'IP5000 Configuration' interface. The main heading is 'Date & Time'. On the left is a navigation menu with categories: Status, Network Setup, VoIP Setup, System, and Code Blue. The 'System' category is expanded, and 'Date/Time' is selected. The main content area is divided into sections: 'Set Date & Time' and 'NTP Server'. Under 'Set Date & Time', there are input fields for Date (mm - dd - yyyy) set to 01 - 12 - 2007, Time (hh:mm) set to 24 : 33, a checked checkbox for Daylight Savings (Active), and a dropdown menu for Time Zone set to (GMT) Casablanca, Monrovia. Under 'NTP Server', there is a checked checkbox for Enabled and an input field for Server Address set to 172.1.100.65. A 'Save Changes' button is located at the bottom right of the configuration area. The footer of the page reads 'copyright © 2010 Code Blue'.



6.3 Backup and Restore Configuration

The IP5000 speakerphone provides the ability to back up and restore the system settings.

1. Click on **Backup/Restore** under **System** (see far left-hand column).
2. To back up the system configuration, click on **Download VoIP Settings**, **Download Media Settings**, **Download Network Settings** and **Download** next to **Firmware** and save the files to an appropriate location.
3. To restore the system configuration file, use the **Browse...** button to locate each backup file.
4. Click **Restore VoIP Settings**, **Restore Media Settings** and/or **Restore Network Settings**.

IP5000 Configuration

Backup & Restore

Status

- System

Network Setup

- Network

VoIP Setup

- Account
- Media
- Security
- Advanced

System

- Administration
- Date/Time
- **Backup/Restore**
- Upgrade Firmware
- Logout

Code Blue

- Batch Configuration
- Numbers
- Recordings
- General Settings
- Hardware Settings
- Action Scripts
- Diagnostic Settings

Backup

Configuration

Download VoIP Settings

Download Media Settings

Download Network Settings

Firmware

Download

Restore

Configuration

Browse...

Restore VoIP Settings

Browse...

Restore Media Settings

Browse...

Restore Network Settings

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6.4 Upgrading the IP5000 Firmware

The IP5000 speakerphone firmware file can be changed by:

1. Selecting **Upgrade Firmware** under **System** (see far left-hand column).
2. Clicking **Browse** and select the appropriate firmware file.
3. Clicking the **Upgrade** button.

The IP5000 speakerphone will update, automatically back up the new firmware and reboot. Once this is complete, your new firmware will be in use and should be displayed next to **Current Version**.

The screenshot displays the 'IP5000 Configuration' web interface. The main heading is 'Firmware Upgrade'. On the left is a navigation menu with categories: Status, Network Setup, VoIP Setup, System, and Code Blue. Under the 'System' category, 'Upgrade Firmware' is selected. The main content area shows the 'Upgrade Firmware' section with a 'Current Version' of 1.0.3 (Sep 20 2010 11:41:49) and a 'Firmware' field with a 'Browse...' button. An 'Upgrade' button is also present. The footer contains the text 'copyright © 2010 Code Blue'.



6.5 Logging Out of the System

1. To log out of the IP5000 speakerphone, simply click on **Logout** under **System** (see far left-hand column).

You will be prompted for confirmation.

2. Click **OK** to complete the logout process or **Cancel** to continue configuring your IP5000.

The screenshot shows the 'IP5000 Configuration' interface. The main heading is 'Firmware Upgrade'. On the left is a navigation menu with categories: Status, Network Setup, VoIP Setup, System, and Code Blue. The 'System' category is expanded, and 'Upgrade Firmware' is selected. The main content area shows 'Current Version' as 1.0.3 (Sep 20 2010 11:41:49) and a 'Firmware' field with a 'Browse...' button. An 'Upgrade' button is also present. A modal dialog box titled 'Message from webpage' is displayed in the foreground, containing a question mark icon and the text: 'This will log you out of the Administration Interface. Click OK to confirm, or Cancel to stay logged in.' The dialog has 'OK' and 'Cancel' buttons at the bottom. The footer of the page reads 'copyright © 2010 Code Blue'.



7 Configuring System Options and Scripts

The IP5000 speakerphone has advanced configuration settings that allow for complete control of the hardware and how the system performs. A memory capacity of 3 MB provides for multiple phone number and recorded message capabilities. PAS audio control, incoming call routing, SNMP and advanced diagnostics enhanced with advanced scripting capabilities provide for flexible configurations.



7.1 Batch Configuration

The IP5000 speakerphone can be configured from a TFTP server.

1. Click on **Batch Configuration** under **Code Blue** (see far left-hand column)
2. Enter the **TFTP Server IP address** and **TFTP Server Port**.
3. Click on **Fetch Configuration** to pull the configuration files from your TFTP server.
4. Click on **Verify Integrity** to validate the configuration files are suitable for use.

If the ToolVox IP Media Gateway and UPD software are being utilized, this will be set automatically and no manual configuration is needed.

IP5000 Configuration

Batch Configuration

Status

- System

Network Setup

- Network

VoIP Setup

- Account
- Media
- Security
- Advanced

System

- Administration
- Date/Time
- Backup/Restore
- Upgrade Firmware
- Logout

Code Blue

- **Batch Configuration**
- Numbers
- Recordings
- General Settings
- Hardware Settings
- Action Scripts
- Diagnostic Settings

Fetch Configuration

TFTP Server:

TFTP Server Port: (advanced; default 69)

Verify Configuration

Verify Configuration:

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7.2 Entering Phone Numbers

The IP5000 speakerphone number configuration is made by:

1. Clicking **Numbers** under **Code Blue** (see far left-hand column).
2. Enter the **100** Number and **Test Number** Description
3. Select the **green plus sign** to add the number.
4. To delete a number, simply click the **red x**.
5. Select the **green check mark** when prompted, **Are you sure**.

The screenshot shows the IP5000 Configuration interface. At the top, there is a dark blue header with the text "IP5000 Configuration" in white. Below this is a sub-header "Numbers" in a light blue bar. The main content area is a table with three columns: "Status", "Number", and "Description". The "Status" column contains a list of menu items: System, Network Setup, VoIP Setup, System, and Code Blue. The "Number" column contains the value "100" and an empty input field. The "Description" column contains the text "Test Number" and an empty input field. To the right of the table, there are two icons: a red "X" and a green plus sign. At the bottom of the page, there is a dark blue footer with the text "copyright © 2010 Code Blue".

Status	Number	Description
System		
Network Setup	100	Test Number
Network		
VoIP Setup		
Account		
Media		
Security		
Advanced		
System		
Administration		
Date/Time		
Backup/Restore		
Upgrade Firmware		
Logout		
Code Blue		
Batch Configuration		
Numbers		
Recordings		
General Settings		
Hardware Settings		
Action Scripts		
Diagnostic Settings		



7.3 Recording Administration

The IP5000 speakerphone recording configuration is made by:

1. Selecting **Recordings** under **Code Blue** (see far left-hand column).
2. Click on **Select recording file** and choose the file you wish to upload.
3. Enter the Description within the **Athletic Field**.
4. Click on the **green plus sign** to add the recording.
5. During the upload process the screen will display, **Uploading file...**

At this point **do not** refresh the page or click away from the page or the file will not be uploaded. Once the file upload is complete, you will see **Download Recording** and a new line for uploading additional recordings.

6. To delete a number, simply click the **red x**.
7. Select the **green check mark** when prompted, **Are you sure**.

The IP5000 speakerphone supports the following formats and all files must contain mono (single channel) data.

- » File containing raw PCM aLaw data (extension .alaw)
- » File containing raw PCM uLaw data (extension .ulaw)
- » Wave file containing 8 KHz or 16 KHz Linear PCM data (extension .wav)

The screenshot shows the 'IP5000 Configuration' interface with the 'Recordings' section active. On the left is a navigation menu with categories: System, Network Setup, VoIP Setup, System, and Code Blue. The 'Recordings' option under Code Blue is highlighted. The main content area has a table with columns: Status, Recording, and Description. The table contains two rows: one for a 'Download recording' with a speaker icon and a red 'x' delete button, and another for 'Select recording file' with a green plus sign add button. The description for the first row is 'Athletic Field'. A copyright notice 'copyright © 2010 Code Blue' is at the bottom.

Status	Recording	Description
System		
Network Setup		
VoIP Setup		
System		
Code Blue		
• System		
• Network Setup		
• VoIP Setup		
• System		
• Code Blue		
• Batch Configuration		
• Numbers		
• Recordings		
• General Settings		
• Hardware Settings		
• Action Scripts		
• Diagnostic Settings		
• Download recording	Athletic Field	✖
• Select recording file	<input type="text"/>	+



7.4 General Settings

The IP5000 speakerphone general configuration can be accessed by:

1. Clicking on **General Settings** under **Code Blue** (see far left-hand column).

In this section you can select how many rings the IP5000 will wait before answering an incoming call.

2. Click the **down arrow** next to **Answer In** to change settings.
3. Additionally, to route all incoming calls to the PAS line level audio output for mass notification, check the box (i.e., **Always route incoming calls to public address**) next to **Public Address**.

The IP5000 can also be configured with a standard location message.

1. Click on the **down arrow** next to **Location Recording** to select this recording as the default Location Message.
2. Once you have configured the options on this page, click **Save Changes**.

IP5000 Configuration

General Configuration

Status	Incoming calls	
◦ System	Answer in	Immediately ▾
Network Setup	Public Address	<input type="checkbox"/> Always route incoming calls to public address
◦ Network	Location message	
VoIP Setup	Location recording	0: None selected ▾
◦ Account	Save Changes	
◦ Media		
◦ Security		
◦ Advanced		
System		
◦ Administration		
◦ Date/Time		
◦ Backup/Restore		
◦ Upgrade Firmware		
◦ Logout		
Code Blue		
◦ Batch Configuration		
◦ Numbers		
◦ Recordings		
◦ General Settings		
◦ Hardware Settings		
◦ Action Scripts		
◦ Diagnostic Settings		

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7.5 Hardware Settings

The IP5000 speakerphone hardware settings are configured by:

1. Selecting **Hardware Settings** under **Code Blue** (see far left-hand column).
2. Select the appropriate **Button Count**, **Keypad Available**, **(Public Address) Available** and **Public Address Gain** settings under the **Interface** section.

(Public Address) Available and **Public Address Gain** are utilized when the IP5000 is controlling the optional Code Blue PAS components (i.e., CB 1, CB 2, CB 5 with Public Address or WM180).

3. The **Power Sources** section allows you to select the power sources available to the IP5000.
4. The **Auxiliary I/O** section allows you to turn on or off the availability of the auxiliary inputs and outputs.
5. With selections made, click **Save Changes**.

IP5000 Configuration

Hardware Configuration

Status	Interface	
<ul style="list-style-type: none"> ▫ System <li style="background-color: #1a2b5a; color: white;">Network Setup ▫ Network <li style="background-color: #1a2b5a; color: white;">VoIP Setup ▫ Account ▫ Media ▫ Security ▫ Advanced <li style="background-color: #1a2b5a; color: white;">System ▫ Administration ▫ Date/Time ▫ Backup/Restore ▫ Upgrade Firmware ▫ Logout <li style="background-color: #1a2b5a; color: white;">Code Blue ▫ Batch Configuration ▫ Numbers ▫ Recordings ▫ General Settings <li style="background-color: #1a2b5a; color: white;">Hardware Settings ▫ Action Scripts ▫ Diagnostic Settings 	<p>Button Count <input type="radio"/> 1 button <input checked="" type="radio"/> 2 buttons <input type="radio"/> 3 buttons <input type="radio"/> 4 buttons</p> <p>Keypad <input checked="" type="checkbox"/> Available</p> <p>Public Address <input checked="" type="checkbox"/> Available</p> <p>Public Address Gain 0 ▾ dB</p>	
	Power Sources	
	<p>A/C <input checked="" type="checkbox"/> Available</p> <p>D/C <input checked="" type="checkbox"/> Available</p> <p>PoE <input checked="" type="checkbox"/> Available</p>	
	Auxiliary I/O	
	<p>Aux Input 1 <input checked="" type="checkbox"/> Available</p> <p>Aux Output 1 <input checked="" type="checkbox"/> Available</p> <p>Aux Output 2 <input checked="" type="checkbox"/> Available</p>	
	<input type="button" value="Save Changes"/>	

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7.6 Action Script Configuration

The IP5000 speakerphone has advanced scripting language built into it for flexible configuration options.

1. Click on **Action Scripts** under **Code Blue** (see far left-hand column) to program the action scripts you wish the unit to perform during button activation or diagnostic condition.
2. To program, select a button or diagnostic condition from the option list by clicking on the down arrow across from **Script for:**
3. Click on **Add Action**.

The screenshot displays the 'IP5000 Configuration' web interface. The main heading is 'Action Scripts'. On the left, a navigation menu lists various configuration categories: Status, Network Setup, VoIP Setup, System, and Code Blue. The 'Code Blue' category is expanded, showing sub-items like Batch Configuration, Numbers, Recordings, General Settings, Hardware Settings, Action Scripts (which is highlighted), and Diagnostic Settings. In the center, the 'Script for:' dropdown menu is set to 'Button #1 Pressed', and there is an 'Add Action' button. To the right, a list of available actions is shown, categorized into 'External Actions' (Button #1-4 Pressed, Auxiliary Input #1) and 'Diagnostics' (Button Failure, Speaker/Microphone Failure, AC Power Failure, Battery Failure, PoE Power Failure, High Temperature). The footer of the interface reads 'copyright © 2010 Code Blue'.



Auxiliary Output Scripting

The IP5000 speakerphone auxiliary outputs are controlled by:

1. Selecting **Control AUX Output** (from lower, left-hand bottom option list) after clicking **Add Action**.

Below are two examples of Auxiliary programming.

- The first is for a fixed duration of time in seconds.
- The second example is enabling and then disabling, typical for before and after a call is placed.

The screenshot shows the 'IP5000 Configuration' interface, specifically the 'Action Scripts' section. The 'Script for:' dropdown is set to 'Button #1 Pressed'. The interface lists three actions:

- Control AUX Output** (Output Number: 2: Auxiliary 2, Set to: Enabled, Duration: Fixed Time of 600 seconds). This is annotated with a dashed box and the text: "Example of programming an Auxiliary output with a fixed duration of on time."
- Control AUX Output** (Output Number: 1: Auxiliary 1, Set to: Enabled, Duration: Until Disabled). This is annotated with a dashed box and the text: "Example programming for enabling and then disabling an Auxiliary output."
- Control AUX Output** (Output Number: 1: Auxiliary 1, Set to: Disabled).

An 'Add Action' button is visible, with a dropdown menu showing options: 'Select Action...', 'Place Call', 'Play Message', and 'Control AUX Output'. A 'Save Script' button is also present. The footer of the interface reads 'copyright © 2010 Code Blue'.



Place Call Scripting

The IP5000 speakerphone call capabilities are programmed by:

1. Selecting **Place Call** in the **Add Action** drop down menu.

The following are parameters that can be chosen:

Parameter	Description
<input type="radio"/> Call <input type="text" value="100 : EMS Agent"/>	Program a phone number the unit should dial.
<input type="radio"/> If not answered, then <input type="text" value="Call"/> <input type="text" value="102 : Roaming Guard"/> <input type="radio"/> If not answered, then <input type="text" value="Go to next step"/>	Instruct the phone to dial another phone number if the initial call is not answered within time period specified in the Dialing/ Answer timeout field.
<input type="radio"/> Dialing/Answer timeout: <input type="text" value="60"/> seconds	The amount of time the IP5000 will ring a phone number before executing the <input type="radio"/> If not answered, then condition set.
<input type="radio"/> Maximum call duration: <input type="text" value="600"/> seconds	The maximum time the IP5000 will stay in a call. After this time the unit will hang up and return to the idle condition.
<input type="radio"/> While Dialing: <input type="text" value="Play Custom Message"/> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> Standard Ringback Play Custom Message Do Nothing </div>	Select option the IP5000 will take while dialing a phone number.
<input type="radio"/> When Answered: <input type="text" value="Normal Two-Way Conversation"/> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> Normal Two-Way Conversation Normal Two-Way Conversation Play Custom Message(s) </div>	The action the IP5000 will take when a call is answered.
<input type="radio"/> In Call Commands: <input type="text" value="Enabled"/>	This parameter enables or disables In-Call Commands during a call.

NOTE: Ensure your button or diagnostic script does not have same recording played to the Caller and Callee at the same time.



Scripting Example 1

Below is an example of the IP5000 speakerphone script.

1. When Button #1 is pressed:
 - » The IP5000 will enable Auxiliary Output 1
 - » Dial phone number 100
 - » Play the message Dialing 911 repeatedly until the call is answered
2. If 100 does not answer within 60 seconds:
 - » The IP5000 will reset
 - » Dial phone number 101
3. The In-Call Commands are available to the Callee side of the conversation. When the call ends, the Auxiliary Output 1 will be disabled.
4. 4. If the call is still active at 10 minutes:
 - » The IP5000 will hang up the call (see dotted line)
 - » The script will continue

In this example, the Auxiliary Output 1 is on for the duration of the call.

The screenshot shows the 'IP5000 Configuration' interface, specifically the 'Action Scripts' section. A green notification bar at the top indicates 'Settings successfully changed.' The script is configured for 'Button #1 Pressed'. The configuration includes:

- Control AUX Output:** Output Number: 1: Auxiliary 1, Set to: Enabled, Duration: Until Disabled.
- Place Call:** Call: 100: EMS Agent. If not answered, then: Call 101: EMS Agent. If not answered, then: Go to next step.
- Dialing/Answer timeout:** 60 seconds.
- Maximum call duration:** 600 seconds (highlighted with a dotted line and labeled '600 seconds = 10 minutes').
- While Dialing:** Play Custom Message: 1: Dialing 911, Repeat: Indefinitely.
- When Answered:** Normal Two-Way Conversation.
- In Call Commands:** Enabled.
- Control AUX Output (Bottom):** Output Number: 1: Auxiliary 1, Set to: Disabled.

Buttons for 'Add Action' and 'Save Script' are visible at the bottom of the configuration area.



Scripting Example 2

Below is an example of an IP5000 speakerphone script.

1. When Button #1 is pressed:
 - » The IP5000 will enable Auxiliary Output 2 for 10 minutes
 - » Dial phone number 100
 - » Play the message Dialing 911 repeatedly until the call is answered
2. If 100 does not answer within 15 seconds:
 - » The IP5000 will reset
 - » Dial phone number 101
3. If 101 does not answer within 15 seconds:
 - » The IP5000 will reset
 - » Dial 102

The In-Call Commands are not available to the Callee side of the conversation.

4. If the call is active at 10 minutes:
 - » The IP5000 will hang up
 - » Script will continue

IP5000 Configuration

Action Scripts

Script for: Button #1 Pressed

- Control AUX Output
 - Output Number: 2: Auxiliary 2
 - Set to: Enabled
 - Duration: Fixed Time of 600 seconds
- Place Call
 - Call: 100: EMS Agent

Conditional Actions:

- If not answered, then Call 101: EMS Agent. The IP5000 calls 101. If 101 does not answer in 15 seconds the IP5000 will reset and dial 102.
- If not answered, then Call 102: Roaming Guard
- If not answered, then Go to next step
- Dialing/Answer timeout: 15 seconds
- Maximum call duration: 600 seconds (600 seconds = 10 minutes)
- While Dialing: Play Custom Message (2: Dialing 911, Repeat: Indefinitely). Message played while the IP5000 connects the call.
- When Answered: Play Custom Message(s) (1: Athletic Field, Repeat: 1 Time). Plays a message to the Caller and Callee 1 time when the IP5000 is answered.
- Play Remotely: 1: Athletic Field (Repeat: 1 Time)
- And Then: Normal Two-Way Conversation

In Call Commands: Disabled

Buttons: Add Action, Save Script

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Scripting Example 3

The third script example allows for dial tone to be accessed by pressing Button 2 on the faceplate.

1. When Button 2 is pressed:
 - » Dial tone will be heard out of the IP5000
 - » User may utilize the keypad to dial a phone number
2. Once the number is dialed:
 - » Callee has 60 seconds to answer
 - » The IP5000 will reset to idle
3. If the call is still active at 10 minutes:
 - » The IP5000 will hang up the call
 - » Script will continue

The In-Call Commands are available to the Callee.

The screenshot displays the 'IP5000 Configuration' web interface, specifically the 'Action Scripts' section. A green notification banner at the top indicates 'Settings successfully changed.' The 'Script for:' dropdown is set to 'Button #2 Pressed'. Under the 'Place Call' section, the 'Go to dial tone' action is selected and highlighted with a dashed blue box, with a callout text 'Dial Tone for Keypad use.' pointing to it. Other settings include: 'Dialing/Answer timeout: 60 seconds', 'Maximum call duration: 600 seconds', 'While Dialing: Standard Ringback', 'When Answered: Normal Two-Way Conversation', and 'In Call Commands: Enabled'. The interface includes a left sidebar with navigation options like 'Status', 'Network Setup', 'VoIP Setup', 'System', and 'Code Blue'. At the bottom, there are 'Add Action' and 'Save Script' buttons, and a copyright notice for 2010 Code Blue.



7.7 Diagnostics Settings

The IP5000 speakerphone diagnostic settings are configured by:

1. Selecting **Diagnostic Settings** under **Code Blue**.
2. Check **Enable** to send **SNMP Traps**.
3. Configure your **SNMP Server** IP Address and **SNMP Server Port** to monitor the IP5000 with SNMP management software or Code Blue's Unit Programming and Diagnostics (UPD) software.

Code Blue's UPD software utilizes port 162 by default for SNMP monitoring of the IP5000 speakerphone.

4. **AC Failure Timeout**, **PoE Failure Tmeout** and the **Microphone Test** time period are also configured in this section.
5. Once this information is entered, click **Save Changes**.

The screenshot shows the 'IP5000 Configuration' interface with the 'Diagnostic Settings' section active. The left sidebar contains a navigation menu with categories: Status, Network Setup, VoIP Setup, System, and Code Blue. The main content area is titled 'Diagnostic Settings' and is divided into two sections: 'SNMP' and 'Others'. In the 'SNMP' section, 'SNMP Traps' is checked and set to 'Enable'. 'SNMP Server' is set to '172.1.100.65' and 'SNMP Server Port' is set to '162' (with a note '(advanced; default 162)'). 'SNMP Ping' is set to 'disabled'. In the 'Others' section, 'AC Failure Timeout' and 'PoE Failure Timeout' are both set to '3600' seconds. 'Microphone Test' is set to a dropdown menu with options: 'disabled', 'disabled', 'every 15 minutes' (highlighted), 'hourly', 'daily', and 'weekly'. A 'Save Changes' button is located at the bottom right of the settings area. The footer of the page reads 'copyright © 2010 Code Blue'.



8 Using the IP5000 Speakerphone

The IP5000 speakerphone can be configured for multiple uses. The main function is to provide emergency voice communication. This is provided via pressing the red PUSH FOR HELP, EMERGENCY or EMERGENCY/EMERGENCIA button, at which time the configured script will run and the various programmed operations initiate.

The black INFO and CALL buttons are typically utilized for placing informational calls, or for acquiring dial tone and utilizing a keypad to dial, respectively. This is typically a non-emergency call and commonly utilized for directory services, student/employee parking lot escort requests, gate entry requests, parking garage entry and similar requests.

The IP5000 speakerphone Auxiliary Outputs are typically utilized for activating the LED beacon/strobe, activating a camera and/or activating centralized building/security management equipment. The normally open contact closures can be utilized to activate any device that takes a normally open input contact closure.

The IP5000 speakerphone Auxiliary Input is utilized to make an emergency call or other function when activated. It can be connected to any normally open output contact and when activated will initialize the configured script. Typical uses would be for monitoring door contacts or gate contacts for unauthorized entry, motion sensor activation for monitoring construction equipment or other large areas, and activation upon removal of life rings on piers or beaches.



8.1 In-Call Commands

The IP5000 speakerphone provides enhanced functionality through the utilization of In-Call Commands. These commands are DTMF or phone keypad entries made by the Callee. Below is a list and explanation of each command.

In-Call Command	Function	Description
1	Play Location Message	Plays the Location Recording selected in General Settings
2	Switch from Speaker to PAS Output and Mute the Mic	Transfers the audio to the PAS audio output and mutes the microphone to eliminate a feedback loop
3	Deactivate Call Timer	Deactivates the Maximum call duration timer setting in the operational script currently running
4	Activate/Deactivate Auxiliary 1	Toggle Auxiliary 1 state; activate or deactivate
5	Activate/Deactivate Auxiliary 2	Toggle Auxiliary 2 state; activate or deactivate
6	Mic Volume Up	Increase the microphone volume; used to decrease the Called Party volume
7	Mic Volume Down	Decrease the microphone volume; used to decrease the Called Party volume
8	Speaker Volume Up	Increase the speaker volume; used to increase the Calling Party volume
9	Speaker Volume Down	Decrease the speaker volume; used to decrease the Calling Party volume



9 Troubleshooting

The IP5000 speakerphone is a network device. The following are tips for troubleshooting:

Power – Ensure the power to your device is working and rated for 802.11af PoE specifications or 12-24V AC/DC rated for > 420 mA.

Ping Test – This determines connectivity and the packet loss and latency time to and from your destination, and the quality of the network connection to your IP5000. If you receive no response and power is confirmed, contact your network administrator.

DHCP – The IP5000 is setup for DHCP by default. If you cannot determine the IP address of your IP5000, contact your network administrator.

Account – Ensure your SIP or IAX2 account is set up correctly. Account username and password must match the account credentials on your VoIP system.

Codec – Ensure your codec settings on your VoIP system match the IP5000 codec settings.

Firewall – Firewalls commonly block or partially block VoIP calls. Check with your network administrator if you cannot communicate with your IP5000 from behind a firewall.



10 Factory Reset

The system can be reset utilizing the following actions:

- Press the reset button (see section 3.1) for five seconds and it will delete the network config files; scripts and recordings will remain.
- Press reset button (see section 3.1) for 10 seconds or more and the IP5000 file system will be formatted resetting to factory defaults.
- Using Windows Telnet
 - » Open <IP Address> <port>
 - » Enter Username: admin and Password: admin
 - » At the prompt, type .advanced
 - » At the prompt, type format c: codeblue
After successfully formatting the phone, type reboot.

```
Telnet 172.1.100.172
Welcome to FUSION OS!
System: CodeBlue 1.2.1

Username: admin
Password:
Incorrect Login

Username: admin
Password:

C:\>.advanced
ADVANCED>format c: codeblue
Formatting, Please Wait...
Format Successful!
ADVANCED>reboot
```

Code Blue Technical Support: 800-205-7186



11 Regulatory and Warranty

Regulatory

The IP5000 speakerphone conforms to the following list of directives and product safety standards as applicable:

EU: EN 55022:2006+A1:2007
EN 55024:1998+A1:2001+A2:2003
EN 61000-4-2:1995
EN 61000-4-3:2006+A1:2008
EN 61000-4-4:2004
EN 61000-4-5:2006
EN 61000-4-6:2007
EN 61000-4-8:1993+A1:2001
EN 61000-4-11:2004
EN 61000-3-2:2006+A1:2007
EN 61000-3-3:2008

USA: CFR 47, Part 15
CANADA: ICES-003e

Warranty

Code Blue Corporation provides a limited warranty on this product. Refer to your sales agreement to establish the terms of the limited warranty. In addition, Code Blue's standard warranty language, as well as information regarding support for this product, while under warranty, is available at www.codeblue.com.

Notice : Every effort was made to ensure that the information in this document was complete and accurate at the time of printing. However, information is subject to change.



12 Technical Services and Support

For additional support, please contact Code Blue's Technical Services and Support Staff at tss@codeblue.com or (616) 392-8296, Opt 3.

8 a.m. to 6 p.m. Monday through Thursday and 8 a.m. to 5 p.m. Friday Eastern Time