CyberData SIP RGB Strobe Integration

with 8x8



This document covers the integration of CyberData's SIP RGB Strobe with 8x8. This document was written for 8x8 and the following CyberData Products.

011376 RGB Strobe ,RoHS COMPLIANT (Ver. 11.8.0)

All support and supporting documentation for CyberData should be obtained from CyberData itself. This document also assumes the reader is familiar with setting up CyberData Paging equipment and/or has access to the Manuals for the CyberData equipment, as several sections are left out of this manual such as setting up the network configuration of the CyberData Equipment and pin outs for relay, and audio out usage.

CyberData devices do integrate with both Yealink and Polycom devices, 8x8 suggests using Yealink devices over Polycom if more than one zone is needed. For more information on the integration process see integration section.

1 Contents

2	INTEGRATION	2
	INCLUDING CYBERDATA CEILING SPEAKERS, AND RGB STROBE	
<u>3</u>	CREATING A USER PROFILE ON 8X8 FOR SIP CALLS AND NIGHT RING CAPABILITIES	3
3.1	CREATE USER PROFILE	3
<u>4</u>	ASSIGN USER TO THE DEVICE	4
<u>5</u>	CYBERDATA SIP RGB STROBE SETUP	6
5.1	CONNECTING TO THE CYBERDATA SIP RGB STROBE	7
5.2	HOME SCREEN	8
5.3	DEVICE CONFIGURATION	9
5.4		11
5.5	SIP CONFIGURATION	
5.6		13
5.7		
5.8		16
	AUDIO CONFIGURATION	

2 Integration

CyberData SIP RGB Strobe can be integrated in multiple ways with 8x8, each integration option has its unique benefits and draw backs. For the best integration between all types of phones (Polycom, Yealink, and other 3rd party devices) as well as routing and remote devices 8x8 recommends SIP Page and Converted to Multicast.

The CyberData SIP RGB Strobe can listen in to Multicast Streams that are pre-defined illuminate with the pre-defined color or strobe effect for that multicast zone.

The CyberData RGB Strobe when invited to a ringing call can illuminate with a pre-defined color, or strobe effect.

The CyberData RGB Strobe has relays and sensors that when closed/opened can illuminate with a pre-defined color, or strobe effect.

Starting with CyberData firmware 7.3.0 you can integrate Polycom Group Paging with traditional Multicast paging services. This is accomplished via CyberData firmware enhancements to provide Multicast and Polycom Group Paging features at the same time, for more information see CyberData's website.

2.1 Including CyberData Ceiling Speakers, and RGB Strobe

When integrating Ceiling speakers and or RGB Strobe the RGB Strobe can be directly connected/wired to these devices to illuminate with a predefined color or strobe effect.

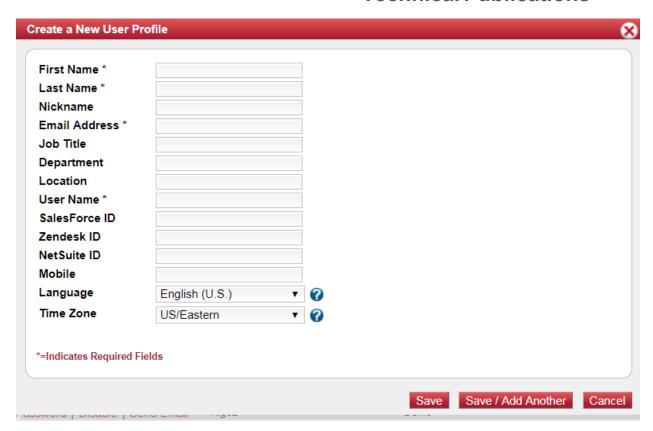
3 Creating a User Profile on 8x8 for SIP Calls and Night Ring Capabilities

If using the SIP Call and or Night Ring capabilities of the SIP RGB Strobe, a softphone device should be ordered and a user is required to be created on 8x8. Create a user profile and assign the new user profile to the softphone only device ordered. This will be needed to be done for Each Registration required on the CyberData Device. If not using the SIP Call or Night Ring capabilities of the CyberData equipment this section can be skipped.

3.1 Create User Profile

In account manager, click on Accounts and then User Profiles. Click Create New User Profile. Provide the following information:

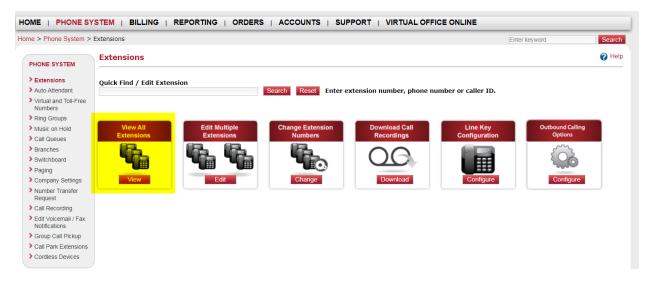
- First Name (Required)
- Last Name (Required)
- Nickname (Optional)
- Email Address (Required, and must be unique)
- Job Title (Optional)
- Department (Optional)
- Location (Optional)
- User Name (Required)
- SalesForce ID (Ignore)
- Zendesk ID (Ignore)
- NetSuite ID (Ignore)
- Mobile (Ignore)
- Language (Optional, Leave as Default)
- Time Zone (Optional, Leave as default)



Click on Save (or Save / Add Another if going to add a Page user as well).

4 Assign User to the Device

After creating the user profile that will interface with CyberData Equipment, assign the user to the device. In Account Manager select Phone System, and then click on View All Extensions.

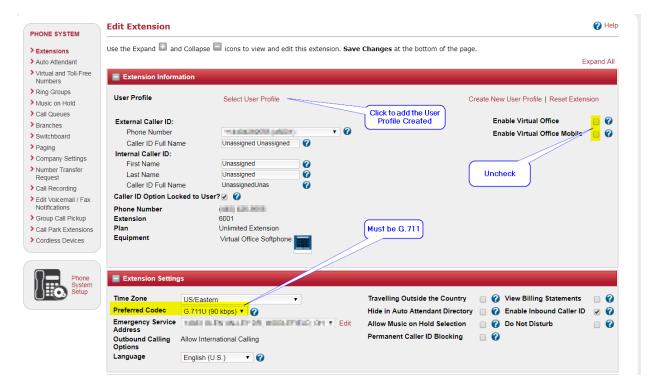


From the list of extensions find the extension ordered for the Cyber Data Device, and click Edit.

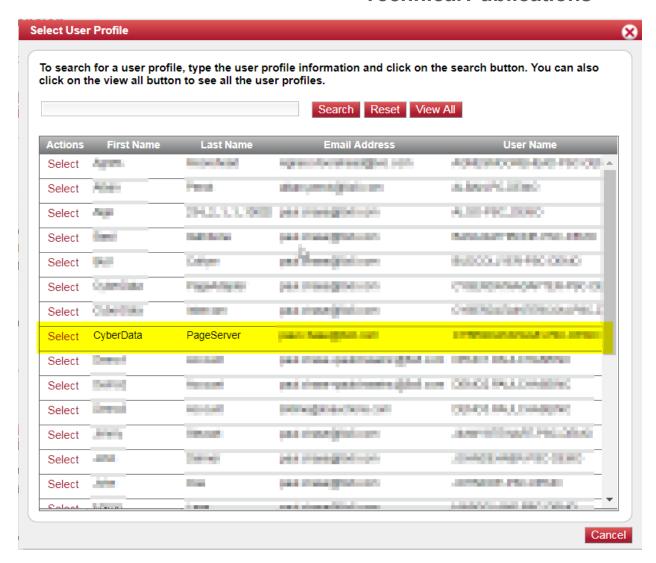


Set the following item, the rest can be left as "default".

- Enable Virtual Office: No/Unchecked
- Enable Virtual Office Mobile: No/Unchecked
- Verify Preferred Codec is set to G.711U (90 kpbs)



Then click on "Select User Profile to add the appropriate User Profile, by clicking the "select" next to the profile you want to use.



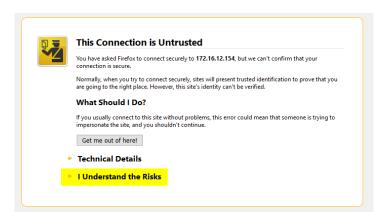
It will return you to the previous screen and click on "Save Changes".

5 CyberData SIP RGB Strobe Setup

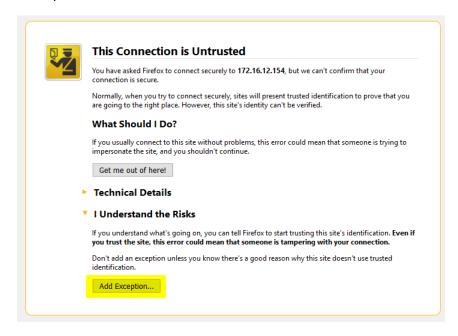
When deploying the CyberData SIP RGB Strobe it is recommended to use DHCP. CyberData provides a "Discovery Utility" that can be downloaded from their website (http://www.cyberdata.net/support/voip/discovery utility.html) to initially discover the IP address of the SIP RGB Strobe. Using the CyberData Discovery Utility to obtain the current IP address of the CyberData SIP RGB Strobe login using a web browser using the default username of "admin" and the default password of "admin". For more information on using the discovery utility and basic setup of the CyberData equipment, please refer to the operating manuals from CyberData. If using the pure multicast integration option, the CyberData equipment will not be registering with 8x8, and it is suggested to set static IPs to all CyberData equipment, or use the "Discover Utility" to identify the IP addresses assigned to the CyberData Equipment for future administration.

5.1 Connecting to the CyberData SIP RGB Strobe

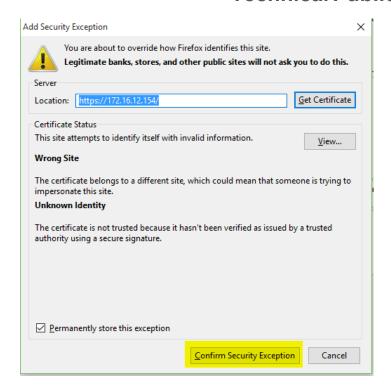
The CyberData SIP RGB Strobe now uses HTTPS to provision the device. When connecting to the CyberData RGB Strobe you will be required to accept the Self Signed certificate by clicking on "I understand the risks" link.



Then click "Add Exception".



And then click Confirm Security Exception.



5.2 Home Screen

After logging into the CyberData SIP RGB Strobe using your favorite browser you are immediately taken to the Home Screen which will display the following information

On the Top, you will find your navigation options.

Device Name: Shows the device name (25-character limit). If using multiple RGB Strobes, please provide a unique name for each speaker.

Change Username: Type in this field to change the username (25-character limit).

• Default: admin

Change Password: Type in this field to change the password (19-character limit).

Default: admin



Re-enter Password: Type the password again in this field to confirm the new password (19character limit).

Current Settings:

Provides you with the current IP addressing of the device, Mac address and serial number.

The home screen will also show the current registration status, and features enabled on the CyberData SIP RGB Strobe.

Import/Export Settings

Allows for Importing and Exporting settings of the CyberData RGB Strobe.

Click on the Save button to save your configuration settings.



Note: You need to reboot for changes to take effect.

Reboot Click on the Reboot button to reboot the system.

Current Status

Serial Number: RESIDENCE OF BODG SHOW Mac Address: Firmware Version: v11.8.0beta01

IP Addressing: DHCP IP Address: 172.16.12.43 Subnet Mask: 255.255.255.0 Default Gateway: 172.16.12.1 DNS Server 1: 209.18.47.61 DNS Server 2: 209.18.47.62

SIP Mode: Enabled Multicast Mode: Enabled Event Reporting: Disabled Nightringer: Disabled

Primary SIP Server: Registered Backup Server 1: Not registered Backup Server 2: Not registered Nightringer Server: Not registered

5.3 Device Configuration

On the device configuration screen, you can configure several default options for the RGB Strobe.

Device Name: Name of the device.

Disable HTTPS (Not Recommended):

Unchecked, 8x8 does not recommend checking this option.

Activate Relay During Ring:

Unchecked, unless you wish to activate the relay.

Activate Relay during Night Ring:

Unchecked, unless you wish to activate the relay.

Set Time with NTP on boot: Checked

NTP Server: Adjust as necessary.

POSIX Time zone String: Adjust as

necessary.

Periodically sync time with server:

Unchecked.

Time update period in hours: 24

Current Time: Shows current time.

Click on the Save button to save your configuration settings.



Note: You need to reboot for changes to take effect.

Click on the Test Relay button to do a relay test.

Click on the Toggle
Help button to see a short
description of some of the web
page items. First click on the
Toggle Help button, and you will
see a question mark () appear





next to some of the web page items. Move the mouse.

5.4 Network Configuration

Addressing Node Select either DHCP IP Addressing or Static Addressing by marking the appropriate radio button. DHCP Addressing mode is enabled on

default and the device will attempt to resolve network addressing with the local DHCP server upon boot. If DHCP Addressing fails, the device will revert to the last known IP address or the factory default address if no prior DHCP lease was established.

Hostname This is the hostname provided by the DHCP server. See the DHCP/ DNS server documentation for more information. Enter up to 64 characters.

IP Address Enter the Static IPv4 network address in dotted decimal notation.

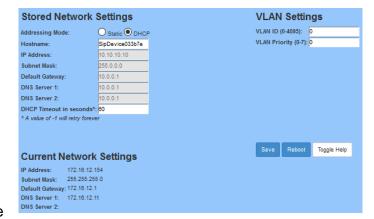
Subnet Mask Enter the Subnet Mask in dotted decimal notation.

Default Gateway Enter the Default Gateway IPv4 address in dotted decimal notation.

DNS Server 1 Enter the primary DNS Server IPv4 address in dotted decimal notation.

DNS Server 2 Enter the secondary DNS Server IPv4 address in dotted decimal notation.

DHCP Timeout in seconds Specify the desired time-out duration (in seconds) that the device will wait for a response from the DHCP server before reverting to the stored static IP address. The stored static IP address may be the last known IP address or the factory default address if no prior DHCP lease was established. Enter up to 8 characters. A value of -1 will retry forever.



Click on the Save button to save your configuration settings.



Note: You need to reboot for changes to take effect.

Click on the Reboot button to reboot the system.

Click on the Toggle Help button to see a short description of some of the web page items. First click on the Toggle Help button, and you will see a question mark (2) appear next to some of the web page items. Move the mouse pointer to hover over a question mark to see a short description of a specific web page item.

Stored Ne	etwork S	ettings
Addressing Mod	le: (Static O DHCF
Hostname:		SipDevice033b7e
IP Address:		10.10.10.10
Subnet Mask:		255.0.0.0
Default Gateway	: [10.0.0.1
DNS Server 1:		10.0.0.1
DNS Server 2:	F	10.0.0.1
DHCP Timeout i	n seconds*:	30
* A value of -1 wi	ll retry forever	
Current N	etwork	Settings
IP Address:	172.18.12.15	4
Subnet Mask:	255.255.255.	0
Default Gateway		
	172.18.12.11	
DNS Server 2:		

5.5 SIP Configuration

SIP configuration screen is used to configure the SIP registration parameters used by the CyberData SIP RGB Strobe to register with 8x8 for paging purposes. The SIP User ID and Authentication ID are the same values which is the GUN ID provided by your 8x8 for the device and assigned to the user created previously. Authentication Password is provided by your 8x8 Engineer.

Enable SIP Operation: Checked

SIP Server: unsbc.8x8.com

Backup SIP Server 1: Not Used

Backup SIP Server 2: Not Used

Remote SIP Port: 5299

Local SIP Port: 5060

Outbound Proxy: must be left

blank.

Outbound Proxy Port: 0

SIP User ID: the GUN ID

provided by your 8x8 Engineer.

Authentication ID: Same as User ID.

Authentication Password: the SIP Proxy Password provided by your 8x8 engineer.

Register with a SIP Server: Checked

Re-registration Interval: 360

Unregister on Reboot:

Unchecked

Note: if checked will create an issue on registration, and the device will fail to register.

SIP Ring Strobe Settings: Set the color, brightness and strobe effect while ringing.

SIP Call Strobe Settings: Set the color, brightness and strobe effect while on a call

SIP MWI Strobe Settings: Set the color, brightness and strobe effect while there is a message

SIP Settings		Nightringer Settings
Enable SIP operation:	⊘	Enable Nightringer: ✓
Register with a SIP Server:	✓	SIP Server: unsbc.8x8.com
Use Cisco SRST:		Remote SIP Port: 5060
Primary SIP Server:	unsbc.8x8.com	Local SIP Port: 5061
Primary SIP User ID:	Self-righted by	Outbound Proxy:
Primary SIP Auth ID:	1-0-100-07	Outbound Proxy Port: 0
Primary SIP Auth Password:		User ID:
		Authenticate ID:
Backup SIP Server 1:		Authenticate Password:
Backup SIP User ID 1:		Re-registration Interval (in seconds): 360
Backup SIP Auth ID 1:		- Control of the cont
Backup SIP Auth Password 1:		
D 1 000 0		Nightringer Strobe Settings
Backup SIP Server 2:		Blink Strobe on Nightring:
Backup SIP User ID 2:		Scene Color BrightnessRed Green Blue
Backup SIP Auth ID 2:		ADA
Backup SIP Auth ID 2: Backup SIP Auth Password 2:		
Backup SIP Auth Password 2:	5299	ADA v White v 100 0 0 0 Preview
Backup SIP Auth Password 2: Remote SIP Port:	5299 5060	
Backup SIP Auth Password 2: Remote SIP Port: Local SIP Port:	5299 5060	ADA v White v 100 0 0 0 Preview
Backup SIP Auth Password 2: Remote SIP Port: Local SIP Port: Outbound Proxy:	5060	Call Disconnection
Backup SIP Auth Password 2: Remote SIP Port: Local SIP Port:		ADA v White v 100 0 0 0 Preview Call Disconnection Terminate Call after delay: 0
Backup SIP Auth Password 2: Remote SIP Port: Local SIP Port: Outbound Proxy:	5060	Call Disconnection
Backup SIP Auth Password 2: Remote SIP Port: Local SIP Port: Outbound Proxy: Outbound Proxy Port:	5060	ADA v White v 100 0 0 0 Preview Call Disconnection Terminate Call after delay: 0
Backup SIP Auth Password 2: Remote SIP Port: Local SIP Port: Outbound Proxy: Outbound Proxy Port: Disable rport Discovery:	5060	Call Disconnection Terminate Call after delay: 0 Codec Selection



5.6 Nightringer Configuration

Nightringer configuration screen is used to configure the SIP registration parameters used by the CyberData SIP RGB Strobe to register with 8x8 for Night Bell or Nightringer purposes. The SIP User ID and Authentication ID are the same values which is the GUN ID provided by your 8x8 for the device and assigned to the user. Authentication Password is provided by your 8x8 Engineer.

SIP Settings Nightringer Settings Enable Nightringer: Checked Enable SIP operation: Enable Nightringer: Register with a SIP Server: SIP Server: unsbc.8x8.com Use Cisco SRST: Remote SIP Port: 5060 Primary SIP Server: unsbc.8x8.com Local SIP Port: 5061 Primary SIP User ID: Outbound Proxy: Primary SIP Auth ID: **Outbound Proxy Port:** Primary SIP Auth Password: Hser ID: Authenticate ID: Backup SIP Server 1: Authenticate Password: Backup SIP User ID 1: Re-registration Interval (in seconds): 360 Backup SIP Auth ID 1: Backup SIP Auth Password 1: **Nightringer Strobe Settings** Backup SIP Server 2: Backup SIP User ID 2: Backup SIP Auth ID 2: Backup SIP Auth Password 2: Remote SIP Port: 5299 **Call Disconnection** Local SIP Port: Terminate Call after delay: 0 Outbound Proxy: Outbound Proxy Port: **Codec Selection** Disable rport Discovery: Force Selected Codec:

PCMU (G.711, u-law) ▼ Re-registration Interval (in seconds): 360

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Unregister on Boot:

Keep Alive Period:

SIP Server: unsbc.8x8.com Remote SIP Port: 5299

Local SIP Port: 5061, must be

Port 5061.

User ID: the GUN ID provided by your 8x8 engineer.

Authentication ID: Same as User ID.

Authentication Password: The SIP Proxy Password for the Device as provided by your 8x8 engineer.

Re-registration Interval: 360

Relay rings to multicast: If you wish all multicast devices to receive the ringer page, CHECK this check box.

Click on the Save button to save your configuration settings.



Note: You need to reboot for changes to take effect.

Reboot Click on the Reboot button to reboot the system.

Toggle Help Click on the Toggle Help button to see a short description of some of the web page items. First click on the Toggle Help button, and you will see a question mark () appear next to some of the web page

RTP Settings			Save	Reboot	Toggle Help
RTP Port (even):	10500	·			
Jitter Buffer:	50				

items. Move the mouse pointer to hover over a question mark to see a short description of a specific web page item.

5.7 Multicast Configuration

Multicast Configuration is used to create multiple zones that the CyberData SIP RGB Strobe will listen to and illuminate with a pre-defined color or strobe effect. If you are not using Multicast Paging, or do not want to include the RGB Strobe in the paging zone this section can be skipped.

When playing multicast streams, audio on different streams will preempt each other according to their priority in the list. An audio stream with a higher priority will interrupt a stream with a lower priority.

If both SIP and Multicast is enabled, SIP audio streams are considered priority 4.5. SIP audio will interrupt multicast streams with priority 0 through 4 and will be interrupted by multicast streams with priority 5 through 9.

During priority 9 multicast streams, the analog volume control is bypassed and the volume level is set to maximum.

Ringtones all play at the same priority level. This means that it is possible to have a night ring tone and a normal ringtone playing at the same time.

Priority 9 will pay the announcement at maximum volume.

Polycom will use a Default IP of 224.0.1.116 and a port of 5001 for its paging functions. 8x8 recommends that when using Polycom phones to set Priority 0 to be your Polycom Paging group by entering the IP of 224.0.1.116 and Port 5001 into Priority 0.

Enable Multicast operation: Checked

Address: Enter the IP address of the Multicast Group.

 Note: To disable a relay on a group, use an IP address of 0.0.0.0.

Port: Enter the port number of the Multicast Group.

• **Note**: The port range can be from 2000 to 65534.

Name: Enter a name for the Multicast Group.

Relay: should the relay be engaged with this page.

Scene: Select Color, Strobe effect and brightness per multicast zone.

Polycom Default Channel: 1

Polycom Priority Channel: 24

Polycom Emergency Channel: 25

Click on the Save button to save your configuration settings.

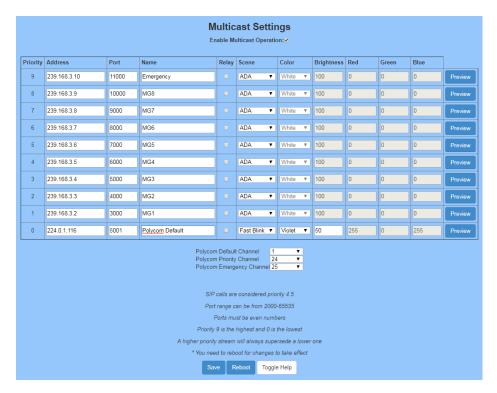


Note: You need to reboot for changes to take effect.

Click on the Reboot button to reboot the system.

5.8 Sensor Configuration

The fault sensor (pins 5 and 6) on the header can be used to monitor a connection. The fault alarm will be activated when sensor parameter has been met.



Door Sensor Normally Closed: Should the sensor be a normally closed relay (yes) or normally open (No).

Activate Relay: Activate relay.

Make call to extension: Check this box to call a preset extension (once).

Dial Out Extension: Enter the desired dial-out extension number.

Dial Out ID: Enter in the GUN number associated with the User (64-character limit).

Test Door Sensor Click to test the door sensor settings.

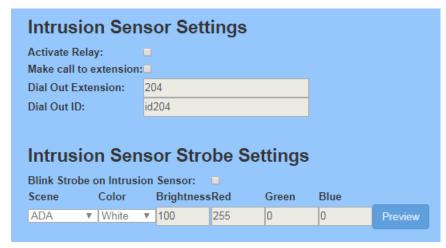
Test Intrusion Sensor
Click to test the
Intrusion sensor settings.

Click on the Save button to save your configuration settings.

Note: You need to reboot for changes to take effect.

Click on the Reboot button to reboot the system.

Door Sensor Settings Door Sensor Normally Closed: O Yes O No Door Open Timeout (in seconds): 0 Activate Relay: Make call to extension: Dial Out Extension: 204 Dial Out ID: id204 Sensor Strobe Settings Blink Strobe on Sensor: Color BrightnessRed Blue Scene Green ADA ▼ White ▼ 100 255 255 Preview





5.9 Audio Configuration

CyberData SIP RGB Strobe allows you to replace all the prompts used by the RGB Strobe with your own custom paging prompts. Custom prompts must be saved as:

WAVE audio, Microsoft PCM, 16 bit, mono 8000 Hz

Custom files may be uploaded for all prompts played by the CyberData SIP RGB Strobe.

Click on the Save button to save your configuration settings.

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Note: You need to reboot for changes to take effect.

Click on the Reboot button to reboot the system.

