

Wall Mount IP Speaker with InformaCast[®]

Users Guide



Getting Started

This step by step guide will help you setup and install your Wahsega speaker with InformaCast[®].

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Chapter 1 Overview

The Wahsega product line offers the highest quality two-way audio and durability in the industry today. Each and every Wahsega product is designed, developed and manufactured in the USA, ensuring a superior product at the best price available in the market.



Speaker Functionality

The initial functions of the Wahsega speaker with InformaCast[®] include:

Dual registration

- Simultaneous support for SIP PBX and InformaCast registration
- Access for both from a single IP endpoint

InformaCast enabled

- Ability to receive live & pre-recorded audio from InformaCast system
- Automatic registration on the InformaCast server

SIP intercom

- IP paging speaker
- Crystal clear audio
 - Multiple audio codecs, including G.722, G.711, G.729, DVI4, Speex, SILK, PCM and iLBC
 - Environmental noise suppression
- Extensive interoperability with most SIP servers and PBXs
- Peer-to-peer (P2P) mode available for decentralized communication

Web-based configuration

- All configuration options accessible through an easy-to-use HTTP Web interface
- Mic and speaker volume control within configuration webpages
- Remote firmware upgradeable



Primary inputs

- Built-in microphone
 - Available push-button override for sound reinforcement
- Two onboard relays for door control
 - Control two door locks or
 - Power and control one door lock

Secondary inputs

- Second RJ45 connector for easy installation and expansion
 - Able to drive second, auxiliary Wahsega speaker up to 20m away via Cat5e or Cat6 cable
- Compatible with standard panic buttons
 - Advanced panic button functionality, designed to reduce false alarm triggers (short press vs. long press)
- Classroom sound reinforcement through optional audio input wallplate
 - Audio input

- LED indicator
- Line-in microphone

• Activation button

Volume control

Simple installation

- Power-over-Ethernet
 - PoE 802.3af powered
- QR code label for easy MAC address identification
- Simple surface mount wall installation

Indoor temperature range (-40°C to +60°C)

Industry-leading standby power of < 2W

Integrated status LED



Quality Standards

- Wahsega products achieve the highest standards of performance in the market by utilizing our complete quality assurance program encompassing software testing, product design and a multistage automated factory test program.
- Wahsega's ultimate goal is to provide a solution that is both cost effective and unsurpassed in quality. By leveraging existing relationships with suppliers to guarantee premium components at the lowest possible prices, we are able to ensure Wahsega products are the finest quality in the market while still offered at highly competitive prices directly to installers.
- In order to achieve the greatest possible voice clarity, all voice and related algorithms have been individually tested to ensure the highest potential MOS score. The accumulated error syndrome, which can cause poor voice quality, is mitigated through this testing process.
- Wahsega's engineering team utilizes a wide array of dedicated test servers to pull and build the various software projects multiple times per day. Each automatic build is then run through an extensive set of automated test cases to ensure the highest performance of each and every firmware version released. This test case coverage is expanded on a continual basis.
- All Wahsega products are 100% factory tested at the board level through a bed of nails full functional test, not just an "is it close enough?" flying probe test. Every finished product is 100% tested again after the final assembly via an automated test station to ensure the highest production quality product for installers.
- To assure the highest quality standards, all Wahsega products are designed, developed and manufactured in the USA.



Chapter 2 User Experience

The Wahsega Wall Mount IP Speaker with InformaCast may look like a standard wall speaker, but it can receive audio from both the InformaCast Advanced Notification System and a SIP PBX, acting as an intercom for two-way conversations with the help of its built-in microphone.

Featuring dual registration with both InformaCast and SIP servers, the speaker is able to receive InformaCast pages in high- or low-quality audio—both live and pre-recorded—while also supporting normal SIP intercom calls.

The speaker may also be connected to a panic button to make emergency SIP calls and/or a remote wall panel to access classroom sound reinforcement functions. Its two onboard relays can be controlled by the InformaCast server to operate door locks for up to two doors per classroom.

In addition, a second, auxiliary speaker may be connected up to 20 meters away via Ethernet cable. Two different Wahsega auxiliary speaker models can be used, depending on the application. The auxiliary speaker—which is powered by the primary speaker—can be either in the same room as the Wahsega Wall Mount IP Speaker or in a separate room.

In a single-room application, the Wahsega Extension Speaker (WL-SPKR-SMT-A or WL-SPKR-22-A) acts as a companion to the primary speaker. This auxiliary speaker's volume can be adjusted independently, but it will always broadcast the same audio as the main speaker. In this application, only the primary speaker supports features such as door locks, microphone, panic button and sound reinforcement.



In a two-room application, the Wahsega Second Room Speaker (WL-SPKR-SMT-2R or WL-SPKR-22-2R) has its own SIP account and InformaCast instance, enabling it to send and receive audio independent of the primary speaker. While it receives its power and data from the primary speaker, it functions separately—with the ability to control door locks, microphone, panic button, and sound reinforcement on its own. To an end user, the Second Room Speaker appears to be completely autonomous; it is simply powered by the primary speaker.

Once your speaker is installed and configured, you will be able to receive SIP calls and InformaCast broadcasts with no additional in-room setup. Two-way communication is clear and simple with a built-in microphone which transmits audio from the classroom to the caller.

If a panic button is connected to the speaker, it will make an emergency call to a preset SIP number on the PBX. To reduce the incidence of false panic calls, the panic button has two call modes: short press and long press. The short press call—which is a call placed after the button is depressed for any length of time *less than two seconds*—calls a first, preconfigured number, such as a front office. The long press call—a call placed after the button is depressed for *two or more seconds*—calls a second, preconfigured emergency number, such as 911.

If the installation includes a sound reinforcement wall panel, the panel will have an audio input, volume control, activate button and LED indicator light.



Software Capabilities

The speaker's configuration is accessible using an HTTP Web interface, viewable from any Web browser on the same LAN. This allows access to various settings such as network/IP address, SIP account and InformaCast instance configuration, intercom/speaker behavior, panic button call numbers, and administrative functions such as firmware upgrade and configuration backup/restore. The configuration is stored in a .JSON file, which is human readable and can be edited by site administrators.



Getting Started

- 1. Connect the speaker's main Ethernet port—labeled *POE*—to a network using a Power-over-Ethernet (PoE) Ethernet connection. When connected, it will power on immediately, and the *LINK/ACTV* status LED will begin to blink.
- 2. Locate and note your speaker's MAC address. It is printed as a QR code on a white sticker on the front of the speaker. Simply scan the QR code with a smartphone or tablet QR reader app, and it will give you the MAC address for that speaker.
- 3. Your speaker will automatically recognize and register with the InformaCast server when you power up and connect to the network via PoE. Use the InformaCast server interface to discover your speaker's IP address. Look for the device matching the MAC address you just noted.
- 4. When you first connect your speaker's Ethernet cable, the status LED on the face of the speaker will blink slowly, indicating that it is trying to discover its IP address. Once its IP address has been established, it will blink faster, indicating that it is trying to register with InformaCast. It will maintain a solid green state once it has successfully registered with the InformaCast server.
- 5. Once you determine the speaker's IP address, navigate to that IP address in your Web browser (for example, http://123.456.78.9).



6. When you access the webpages, the speaker will ask for a username and password. The default username and password are *admin* and *admin*.

	Authentication Required						
The server http://192.168.96.196 requires a username and password. The server says: Wahsega InformaCast Speaker.							
	User Name: admin Password: *****						
	Log In Cancel]					

- 7. On the right side of the page is the Status bar. It shows the current SIP account status (default status is unconfigured and unregistered), the registration status and Ethernet MAC address of the InformaCast instance, and the speaker's system information (current IP address, Ethernet MAC address and system time).
- 8. To change the IP address settings, go to the *Network* page and modify settings in the *WAN* section. To set the network for DHCP, click the *Dynamic IP* radio button. For static IP addressing, click the *Static IP* radio button and fill in the relevant IP address fields with values from your network administrator.



9. To change the SIP account settings, go to the *Accounts* page and modify settings in the account. Most users will only need to set *Username/Number* (the phone number or extension assigned to this speaker) and *Domain* (the hostname or IP address of your SIP server). You may also provide an *Account Name*, which is used only for logging purposes, and a *Display Name*, which may be used by your SIP server depending on its configuration.

If a password is required for your SIP server or proxy server, provide it in the *Password* field. If your SIP server or proxy server requires an authentication username that is different from the name entered in *Username/Number*, enter it under the *Advanced* tab in the *Auth Username* field.

- 10. After configuring the network and SIP settings for your speaker, use the configuration settings described in the next sections to customize the speaker, intercom, panic button and InformaCast functionality.
- 11. Be sure to set up your speaker(s) and relays (if applicable) in the InformaCast programming utility. For setup assistance, visit https://www.singlewire.com/academy.



Chapter 3 Configuration and Web Interface

The Web interface is a set of webpages used to configure the various settings available on the InformaCast speaker. It allows the speaker to be configured from any computer or device with a Web browser on the same network.



General Settings

🏏 wahsega	General	Accounts	Audio	Network	System	Managen	nent			
							Showing Ba	isic Settings	Login Renew 08:53	Logout
General Configure roo	om moo	de and pa	inic bu	itton					Stat	us
Room Mo	de	Room	n mode	1 room,	1 speaker		¥		Syste IP: 192.168.100.78 MAC Address: 18-39-19-40-11-18 System time:	m (Static)
Panic But	ton								Uptime: 1m 18s	18
		Shor phone n	t-press number	2000			?		Accou Room 1 InformaC MAC: 18-39-19-40-	nts ast 11-18
		Lonį phone n	g-press number	9911			?		Status: Registered Room 1 SIP User: 1001@192.1	68.100.70
Notificatio	ons	SIP incom an:	ing call swered	?)				Room 1 RTP Prior Multicast address 239.255.0.1:5004	ity 2 ::
		RTP ind broadca	coming ist start	• ?)					
General-									-	
Purpose		Primary s	peaker							
Inputs		Input 1 ft	unction	panic_bu	utton					
		Input 2 fu	unction	SNMP va	ariable/trap)	•			
		Input 3 fu	unction	SNMP va	ariable/trap)	¥			
		Input 4 fu	unction	SNMP va	ariable/trap)	•			

The *General* page configures settings for Room Mode and Panic Button.



Room Mode

- **Room Mode** Configure the number of rooms and/or speakers controlled by this primary speaker.
 - **1 room, 1 speaker –** Single room, single speaker setup.
 - **1 room, 2 speakers** Single room, two speaker configuration. Second speaker is a WL-SPKR-xx-A.
 - 2 rooms (1 speaker each) Two room configuration. InformaCast, SIP, and audio settings will be independently configured for each room on Accounts and Audio webpages. Second speaker is a WL-SPKR-xx-2R.

Panic Button

- **Short-press phone number** The number or extension to call when the panic button is pressed for *less than two (2) seconds*.
- **Long-press phone number** The number or extension to call when the panic button is pressed for *2 seconds or longer*.

Notifications

- **SIP incoming call answered** When checked, a tone will be played when an incoming SIP call is answered by the speaker.
- **RTP incoming broadcast start** When checked, a tone will be played when an incoming RTP broadcast starts.

General-Purpose Inputs

Configure speaker's four contact closure inputs.

- **Panic Button** Input 1 is always used for the panic/call button.
- **SNMP variable/trap** Triggers SNMP variable configured by user. (Configured on Network page.)
- Volume button (cycle to next volume) User a button to control the speaker's volume through button press cycles.



Account Settings

🏏 wahsega Genera	l Accounts Audio	Network System Ma	nagement	
			Showing Advanced Settings	Login Renew 08:56 Logout
Accounts Configure VoIP acc	count(s) for SIP or	IP-PBX servers		Status
Room 1	General Status			System IP: 192.168.100.78 (Static)
InformaCast	Audio Mixing	3	• ?	MAC Address: 18-39-19-40-11-18 System time: 2019-03-21 13:11:10
	Manual config server URL		•	Uptime: 8m 17s Accounts
Room 1 SIP	General Topolo	gy QoS Advanced	t	Room 1 InformaCast MAC: 18-39-19-40-11-18
Account Actions:	Use SIP server			Status: Registered Room 1 SIP User: 1001@192.168.100.70
	Display name	Room 1001	?	Status: Registered Room 1 RTP Priority 2
	Username/Number	1001	?	Multicast address: 239.255.0.1:5004 Status: Ready
	Domain	192.168.100.70	?	
	Password	••••	?	
Room 1 RTP	General			
Priority 2 Account Actions:	Multicast IP address	239.255.0.1	?	
Disable	Port	0	?	

The **Accounts** page configures settings for InformaCast and SIP accounts for the primary speaker (Room 1) and second room speaker (Room 2, if applicable).



Room 1 InformaCast

- **Audio Mixing** Maximum number of InformaCast audio broadcasts to play simultaneously on this channel. Note 1
 - To disable audio mixing, choose 1.
- **Manual config server URL** Enter the URL of the InformaCast server if needed.
 - Within a typical installation, the configuration server will be detected automatically. However, there may be times when that detection fails and this must be done manually. There are two methods, HTTP or TFTP.
 - HTTP The format of the URL must match "http://<ip_address>:<port number>/<path_on_server>".
 It is easiest to grab this information from the SPL configuration found under Admin | Network Parameters | SLP Parameters on the InformaCast server.
 - **TFTP** If a TFTP server is in use, the format of the URL must be

"tftp://<ip_address>:<port_number>/<path_on_server>".

Note 1: While each channel is capable of playing up to three (3) audio broadcasts at once, the maximum number of simultaneous *high-quality* (44.1 kHz) audio broadcasts is two (2) per device.



Room 1 SIP

- **Use SIP Server** If checked, operates in normal SIP mode. If unchecked, operates in peer-to-peer mode.
- **Display name** The name to report to the SIP server, which may be shown to other callers (depending on the SIP server's config).
- **Username/Number** The phone number or extension this speaker is configured with on the SIP server.
- **Domain** The hostname or domain name of the SIP server. Not used in peer-to-peer (P2P) mode.
- **Password** Password used to register this account with the SIP server, if needed. By default, authentication is done with the *Username/Number* above. If a different username should be used for authentication, enter it in *Authentication Username* under the *Advanced* tab above.

Room 1 RTP Priority 2

- Multicast IP address The multicast IP address this device should listen on to receive RTP audio. Valid addresses range from 224.0.0.1 to 239.255.255.255.
 - Note: Some addresses, particularly in the 224.xx.xx.xx range, are globally reserved and should not be used! Consider using addresses in the 239.255.xx.xx range, which are "Administratively Scoped Local Addresses."
- **Port** The UDP port this account should listen on to receive RTP audio. Valid ports range from 1 to 65535. Setting this to ø will use the default RTP port of 5004.



Room 2 InformaCast

• See settings above if applicable.

Room 2 SIP

• See settings above if applicable.

Room 2 RTP Priority 2

• See settings above if applicable.



Audio Settings

💊 wahsega 🛛 Gene	ral Accounts Audio	Network System	m Management			
			Sho	wing Advanced Settings	Login Renew 08:28	Logout
Audio Configure audio s	ettings and prefer	red codecs			Statu	s
Audio Settings	Speaker volume	0 dB (default)	٣	?	IP: 192.168.100.78 (Sta MAC Address: 18-39-19-40-11-18 System time:	tic)
Configure Speaker and Microphone Volume	Limit speaker volume adjustment	• ?			2019-03-21 14:01:25 Uptime: 58m 32s	
	Microphone volume	+3 dB (default)	•	?	Accounts Room 1 InformaCast	12
	Microphone high- pass filter	DC blocker only	(60 Hz) 🔻	?	Status: Registered	00.70
	Noise suppression	N (?)			Status: Registered	2
	Local voice detection threshold	25 (default)	•	?	Multicast address: 239.255.0.1:5004 Status: Ready	
	Local voice detection hangtime	200 ms (default)	•	?		
	Local echo reject duration	250 ms (default)	•	?		
	Remote voice detection threshold	22 (default)	*	?		
	Remote voice detection hangtime	40 ms (default)	*	?		
	Remote voice priority threshold	27 (default)	٣	?		
	Speaker audio delay	120 ms (default)	•	?		
	Microphone audio delay	100 ms (default)	•	?		
	Sound Reinforcement Type	One Input	Ŧ	?		
SIP	Choose preferred code	cs for SIP audio.				
	Available		Preferred			
	G.711 uLaw G.711 aLaw G.726 (16kbps) G.726 (4kbps) G.726 fixed payload G.726 fixed payload G.722 HD DVI4 Narrowband DVI4 HD DVI4 Ultra HD Linear PCM Linear PCM Linear PCM Ultra HD Linear PCM Ultra HD Linear PCM Ultra HD	in) ndian) 💌	G.722 HD DVI4 HD G.726 fixed payloa DVI4 Narrowband G.711 uLaw G.711 aLaw	id v		
	Enable>	*	<< Disable	Move up Move down		

The *Audio* page configures settings for speaker and microphone audio as well as codec selection.



Audio Settings

- **Speaker volume** Increase or decrease decibel level of speaker output. Default level is 0dB, or no change. *Note: Settings above +6dB use digital software gain and may reduce audio quality.*
- Limit maximum volume adjustment of speaker volume When checked, speaker will be limited to the maximum volume indicated when local users adjust volume via button press.
- **Microphone volume** Increase or decrease decibel level of microphone input. Default level is +3dB. *Note: Settings above +33dB use digital software gain and may reduce audio quality.*
- **Microphone high-pass filter** Eliminates low-frequency noise that can make speech difficult to understand.
 - **DC blocker only** Eliminates hum from power lines while leaving other low-frequency sounds intact.
 - **High-pass mode** Eliminates most noise below standard telephone frequencies. Recommended setting for areas with high levels of background noise.
- **Noise suppression** Eliminates background noise from the device's microphone (such as a steady hum, people or noises in the background, or machinery). *This only affects audio on the remote side of the call; the local side is unaffected.*
- Local voice detection threshold Sets the threshold for detecting voice activity on the microphone. The most sensitive setting is 0, and the least sensitive setting is 50. Default level is 25.



- Local voice detection hangtime Specifies how long voice must be absent at the microphone before deciding that the person who was speaking has stopped. This prevents audio from being cut off during brief pauses in speech. Default level is 200ms.
- Local echo reject duration After the remote user has stopped speaking, the microphone is not allowed to detect voice until this much time has elapsed. This prevents speaker audio from echoing back through the microphone to the remote user. The default level is 250ms.
- **Remote voice detection threshold** Sets the threshold for detecting voice activity from the remote user. The most sensitive setting is 0, and the least sensitive setting is 50. Default level is 22.
- **Remote voice detection hangtime** Specifies how long remote voice must be absent before deciding that the person who was speaking has stopped. This prevents audio from being cut off during brief pauses in speech. Default level is 40ms.
- **Remote voice priority threshold** Sets the threshold for allowing the remote user's voice to override any activity at the microphone. Remote speech above this threshold will be played out the speaker at normal volume regardless of whether the local user is talking. The most sensitive setting is 0, and the least sensitive setting is 50. Default level is 27.
- **Speaker audio delay** Amount of delay to be applied to the speaker audio, which gives the voice detection algorithm time to unmute the speaker when remote speech begins. Too small of a value can truncate the beginning of audio, while too large of a value can disrupt the flow of a conversation. Default level is 120ms.



- **Microphone audio delay** Amount of delay applied to microphone audio, which gives the voice detection algorithm time to unmute the microphone when local speech begins. Too small of a value can truncate the beginning of audio, while too large of a value can disrupt the flow of a conversation. Default level is 100ms.
- **Sound Reinforcement Type –** The type of Wahsega Sound Reinforcement Panel you plan to use with this speaker.
 - Two Input
 - One Input
 - Persistent

SIP

- Choose preferred codecs for SIP audio These settings enable/ disable audio codecs and set their order of use for SIP calls. The system tries codecs at the top of the *Preferred* list before trying codecs at the bottom of the list.
 - To add a preferred codec, highlight the *Available* codec on the left and click *Enable*, adding it to the *Preferred* list on the right.
 - To change the priority level of a preferred codec, simply highlight it in the *Preferred* list and click *Move Up* or *Move Down*.



Network Configuration

ala ang ang ang ang ang ang ang ang ang an	al Accounts Audio	Network System Management	
		Showing Advanced Settings	Login Renew 09:35 Logout
Network Configure network	settings		Status
WAN			System IP: 192.168.100.78 (Static)
Outgoing Network Settings	General		MAC Address: 18-39-19-40-11-18 System time:
	Host		2019-03-21 14:07:39 Uptime: 1h 4m 46s
	Domain		Accounts Room 1 InformaCast
	Connection type	Dynamic IP (DHCP) Static IP	MAC: 18-39-19-40-11-18 Status: Registered Room 1 SIP
	Static IP Address		User: 1001@192.168.100.70 Status: Registered
	Address	192.168.100.78	Room 1 RTP Priority 2 Multicast address: 299 255 0 1-5004
	Mask	255.255.248.0	Status: Ready
	Default router	192.168.96.1	
	DNS primary	192.168.99.1	
	DNS secondary	0.0.0.0	
	Additional Settings		-
	Enable IGMPv3 (advanced)	• •	
	MTU size (advanced)	1500	
STUN			
Global STUN Server Settings	Server		
	Port	3478	
RTP			
Configure Port Range	Port range start	23456 to 23556	
SNMP			
	Enabled	× (?)	
	Port	?	
	Read-only community string	public ?	
	Read-write		
	community string	private (?)	
	Trap community string	trap 🕐	
	Trap destinations		
	Destinations		
	Add destination	Domain name or IP address : Port Add	

The *Network* page configures settings for TCP/IP networking.



WAN

- Connection Type
 - **Dynamic IP** Choose this to use DHCP to assign an address automatically. Note that when using DHCP, you will have to determine the IP address assigned to the speaker using your DHCP server or through some other method in order to access the configuration webpages in the future.
 - **Static IP** Choose this to enter IP address settings manually.
 - Warning: If you enter a configuration that is not accessible from your network, you may be unable to communicate with the speaker! Double-check that the settings you enter are correct before rebooting the speaker to apply them.

Additional Settings (advanced)

- **Enable IGMPv3** Check to enable IGMP version 3 on your speaker. If unchecked, IGMP version 2 (IGMPv2) will be used. Default setting is *disabled*. If you know that your routers have IGMPv3 enabled, you can safely enable this setting. *If unsure, leave disabled* to ensure support with routers that only use IGMPv2.
- **MTU size** Maximum transmission unit allowed on the Ethernet connection. The standard for Ethernet networks is 1500, and you *should not change this value* unless directed by your network administrator.



STUN

• **Server/Port** – Enter your STUN server here if applicable. STUN servers may be required to operate with a public SIP server from behind a NAT or router.

RTP

• **Port Range** – Select the UDP port range to use for sending RTP audio network traffic during a call.

SNMP

- **SNMP Enabled** SNMP is required for the InformaCast server to control relays in the speaker. *The speaker's relays cannot be used while SNMP is disabled*, so be sure to check this box if you may be using relays with InformaCast.
- **Port –** The port number used for SNMP.
- **Read-only community string** The community string that will allow read-only access to SNMP variables on this device. SNMP community strings are sent in plain-text, so *do not re-use a password that's used for any secure logins or devices!*
- **Read-write community string –** The community string that will allow read-write devices to access the SNMP variables on this device. SNMP community strings are sent in plain-text, so *do not re-use a password that's used for any secure logins or devices!*
- **Trap community string** The community string used when this device sends SNMP traps.
- Trap destinations
 - Add destination Add destination for SNMP trap as domain name or IP address plus port.



General System Configuration

🍾 wahsega 🛛 General	Accounts Audio	Network	System	Manage	ement			
					Showing Ad	lvanced Settings	Login Renew 07:59	Logout
System Configure additiona	I system-specif	ic settin	ngs				Statu	S
Authentication Administrative User Account	Username	admin	Change Pa	ssword	?		System IP: 192.168.100.78 (St MAC Address: 18-39-19-40-11-18 System time: 2019-03-21 14:13:10 Uptime: 1h 10m 17s	atic)
Syslog							Account	s
System Logging Configuration	Report to server						MAC: 18-39-19-40-11- Status: Registered	18
	Server						Room 1 SIP User: 1001@192.168.	100.70
	Port	514					Room 1 RTP Priority	2
Date & Time System Date and Time Configuration	Network Time Enabled Server	O.wahseg	ga.pool.ntp).org			239.255.0.1:5004 Status: Ready	
	Daylight saving time						m	
	Time zone						-	
	(GMT-	05:00) East	ern Time (l	US & Can	ada)	•		
			Set date 8	& time				
System								
description	System contact				?			
	System name				?			
	System location				?			

The **System** page configures settings for the speaker's operating system and other administrative functions.



Authentication

Username – Set the username and password used on the configuration webpages and Telnet shell. Default is *admin*.

Syslog (optional)

Report to server - Configures a syslog server that can receive system logs from the speaker. This requires a PC or server running a syslog server to receive and store the logs.

Date & Time

- **NTP Enabled** Automatically determines the time of day using an NTP server. This is recommended, as the speaker does not have a battery-backed clock.
- Daylight saving time Select this only if daylight saving time is currently in effect in your location. (For more information about DST rules and dates, see <u>http://www.nist.gov/pml/div688/dst.cfm</u>.)
- **Time zone** Select the region that most closely matches your time zone. (Note that daylight saving time is *not* automatically applied based on region.)

System Description (optional)

- **System contact** Identification and contact information for this device's administrator (usually an IT person).
- System name Administratively-assigned name for this device. By SNMP convention, this is the device's fully-qualified domain name. Also available through SNMP as sysname (1.3.6.1.2.1.1.1.5), as defined by RFC 1213.
- System location The physical location of this device (e.g., "3rd floor telephone closet"). Also available through SNMP as sysLocation (1.3.6.1.2.1.1.6), as defined by RFC 1213.



Firmware Management

🏏 wahsega General	Accounts Audio	Network System	Management Showi	ng Advanced Settings	Login Renew 06:29 Logout
Managemer Manage system con)t figuration and f	irmware			Status
Restart		Restart device			System IP: 192.168.100.78 (Static) MAC Address: 18-39-19-40-11-18 System time: 2019-03-21 14:14:40
Configuration					Uptime: 1h 11m 47s
System configuration	Backup/Download Restore/Upload	Download config To restore/uploa configuratio	uration ad system configu n file here, or click	uration, drop a saved k to choose a file.	Accounts Room 1 InformaCast MAC: 18-39-19-40-11-18 Status: Registered Room 1 SIP User: 1001@192.168.100.70 Status: Registered Room 1 RTP Priority 2 Multicast address: 239.255.0.1:5004
Firmware					Status: Ready
System update	New firmware	Version: 1.8.1 Choose File N Update firmw	.20190215 o file chosen are		

The *Management* page has functions for managing the speaker's configuration and firmware.



Configuration

- **Backup/Download** Use this to retrieve a copy of the speaker's current configuration and save to disk.
- **Restore/Upload** Use this to upload a valid configuration file that was retrieved and saved from a speaker. *Note that a reboot will be required before the settings take effect.*

Firmware

• Use this to upload new firmware. DO NOT UNPLUG THE SPEAKER OR INTERRUPT THE FIRMWARE UPGRADE PROCESS BEFORE IT COMPLETES, OR IT MAY BE RENDERED UNUSABLE.



Wall Mount IP Speaker with InformaCast[®]

WL-SPKR-SMT-INF

WL-SPKR-SMT-2R

WL-SPKR-SMT-A

Users Guide

Version 1.8.1-20190215