



wahsega labs

Surface Mount Wall Speaker with InformaCast® and SIP

Users Guide



Getting Started

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

Important Notice

This manual and any examples contained herein are provided “as is” and are subject to change without notice. Wahsega Labs Incorporated reserves the right to make changes to its products without notice and advises its customers to obtain the latest version of relevant information before placing orders and to verify that the information being relied on is current.

No title to or ownership of the hardware, software and designs described in this document or any of its parts, including patents, copyrights and trade secrets, is transferred to customers. Wahsega Labs Incorporated makes no representations or warranties regarding the contents of this document. Information in this document is subject to change without notice and does not represent a commitment on the part of Wahsega Labs Incorporated.

Copyright Notice

© 2019 Wahsega Labs, Inc. All rights reserved

Reproduction, adaptation, or translation of this manual is prohibited without prior written permission of Wahsega Labs Company, except as allowed under the copyright laws.

Trademarks

Wahsega Labs Incorporated and the Wahsega Labs Incorporated logo are trademarks of Wahsega Labs Incorporated, Inc. All other brand and product names are trademarks, service marks, registered trademarks, or registered service marks of their respective companies.

Patent

Wahsega Labs Surface Mount Wall Speaker with InformaCast® and SIP
United States patent pending.

Table of Contents

PREFACE	I
<i>Important Notice</i>	<i>i</i>
<i>Copyright Notice</i>	<i>i</i>
<i>Trademarks</i>	<i>i</i>
<i>Patent</i>	<i>i</i>
CHAPTER 1: OVERVIEW.....	3
<i>Speaker Functionality</i>	<i>4</i>
<i>Quality Standards</i>	<i>6</i>
CHAPTER 2: USER EXPERIENCE.....	7
<i>Software Capabilities</i>	<i>9</i>
<i>Getting Started</i>	<i>10</i>
CHAPTER 3: CONFIGURATION AND WEB INTERFACE	13
<i>General Settings</i>	<i>14</i>
<i>Account Settings</i>	<i>16</i>
<i>Audio Settings</i>	<i>20</i>
<i>Network Configuration</i>	<i>24</i>
<i>General System Configuration</i>	<i>27</i>
<i>Firmware Management</i>	<i>29</i>

Chapter 1 Overview

The Wahsega Labs product line offers the highest quality two-way audio and durability in the industry today. Each and every Wahsega Labs 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
 - Volume control
 - Activation button
 - LED indicator
 - Line-in microphone

Simple installation

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

Industrial temperature range (-40°C to +85°C)

Industry-leading standby power of < 1W

Integrated status LED

Quality Standards

- Wahsega Labs 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 Labs' 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 Labs 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 Labs' 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 Labs 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 Labs products are designed, developed and manufactured in the USA.

Chapter 2

User Experience

The Wahsega Surface Mount Wall 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 Surface Mount Wall Speaker or in a separate room.

In a single-room application, the Wahsega Analog 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.

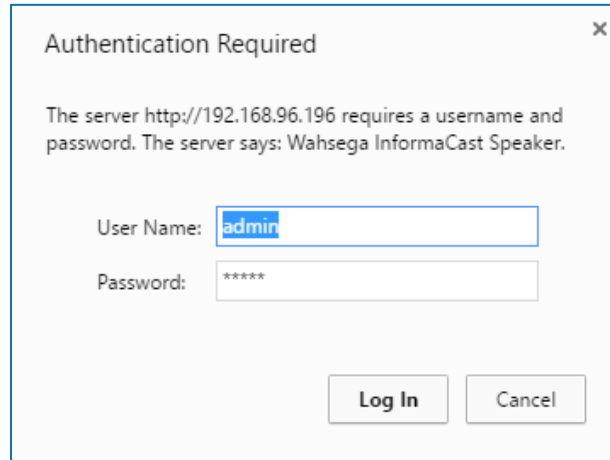
Software Capabilities

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>).

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



The image shows a web browser dialog box titled "Authentication Required" with a close button (X) in the top right corner. The text inside the dialog reads: "The server http://192.168.96.196 requires a username and password. The server says: Wahsega InformaCast Speaker." Below this text are two input fields. The first is labeled "User Name:" and contains the text "admin". The second is labeled "Password:" and contains six asterisks "*****". At the bottom right of the dialog are two buttons: "Log In" and "Cancel".

- 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).
- 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 Management

Showing Basic Settings Login Renew 08:53 Logout

General

Configure room mode and panic button

Room Mode

Room mode 1 room, 1 speaker

Panic Button

Short-press phone number 2000 ?

Long-press phone number 9911 ?

Notifications

SIP incoming call answered ☒ ?

RTP incoming broadcast start ☐ ?

General-Purpose Inputs

Primary speaker

Input 1 function panic_button

Input 2 function SNMP variable/trap

Input 3 function SNMP variable/trap

Input 4 function SNMP variable/trap

Status

System

IP: 192.168.100.78 (Static)
MAC Address: 18-39-19-40-11-18
System time: 2019-03-21 12:30:08
Uptime: 1m 18s

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
Status: Ready

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 configuration.
 - **1 room, 2 speakers** – Single room, two speaker configuration.
 - **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.

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


[General](#)
[Accounts](#)
[Audio](#)
[Network](#)
[System](#)
[Management](#)

Showing Advanced Settings
Login Renew 08:56
Logout

Accounts

Configure VoIP account(s) for SIP or IP-PBX servers

Room 1
InformaCast

General
Status

Audio Mixing
3
?

Manual config server URL
?

Room 1 SIP
Account Actions:
Disable

General
Topology
QoS
Advanced

Use SIP server
☒
?

Display name
Room 1001
?

Username/Number
1001
?

Domain
192.168.100.70
?

Password
....
?

Room 1 RTP
Priority 2
Account Actions:
Disable

General

Multicast IP address
239.255.0.1
?

Port
0
?

Status

System
IP: 192.168.100.78 (Static)
MAC Address: 18-39-19-40-11-18
System time: 2019-03-21 13:11:10
Uptime: 8m 17s

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
Status: Ready

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 **0** 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


[General](#)
[Accounts](#)
[Audio](#)
[Network](#)
[System](#)
[Management](#)

Showing Advanced Settings
Login Renew 08:28
Logout

Audio

Configure audio settings and preferred codecs

Audio Settings

Configure Speaker and Microphone Volume

Speaker volume

0 dB (default)

?

Limit speaker volume adjustment

☐

?

Microphone volume

+3 dB (default)

?

Microphone high-pass filter

DC blocker only (60 Hz)

?

Noise suppression

☒

?

Local voice detection threshold

25 (default)

?

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)

?

Speaker audio delay

120 ms (default)

?

Microphone audio delay

100 ms (default)

?

Sound Reinforcement Type

One Input

?

SIP

Choose preferred codecs for SIP audio.

Available	Preferred
G.711 uLaw	G.722 HD
G.711 aLaw	DVI4 HD
G.726 (16kbps)	G.726 fixed payload
G.726 (24kbps)	DVI4 Narrowband
G.726 fixed payload	G.711 uLaw
G.726 (40kbps)	G.711 aLaw
G.722 HD	
DVI4 Narrowband	
DVI4 HD	
DVI4 Ultra HD	
Linear PCM	
Linear PCM HD	
Linear PCM Ultra HD	
Linear PCM (little endian)	
Linear PCM HD (little endian)	

Enable >>

<< Disable

Move up

Move down

Status

System

IP: 192.168.100.78 (Static)
MAC Address: 18-39-19-40-11-18
System time: 2019-03-21 14:01:25
Uptime: 58m 32s

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
Status: Ready

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


[General](#)
[Accounts](#)
[Audio](#)
[Network](#)
[System](#)
[Management](#)

[Showing Advanced Settings](#)
[Login Renew 09:35](#)
[Logout](#)

Network

Configure network settings

WAN

Outgoing Network Settings

General

Host

Domain

Connection type ☐ Dynamic IP (DHCP) ☒ Static IP

Static IP Address

Address

Mask

Default router

DNS primary

DNS secondary

Additional Settings

Enable IGMPv3 (advanced) ☐ ?

MTU size (advanced)

STUN

Global STUN Server Settings

Server

Port

RTP

Configure Port Range

Port range start to

SNMP

Enabled ☒ ?

Port ?

Read-only community string ?

Read-write community string ?

Trap community string ?

Trap destinations

Destinations

Add destination :

[Add](#)

Status

System

IP: 192.168.100.78 (Static)

MAC Address: 18-39-19-40-11-18

System time: 2019-03-21 14:07:39

Uptime: 1h 4m 46s

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

Status: Ready

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


[General](#)
[Accounts](#)
[Audio](#)
[Network](#)
[System](#)
[Management](#)

[Showing Advanced Settings](#)
[Login Renew 07:59](#)
[Logout](#)

System

Configure additional system-specific settings

Authentication

Administrative User Account

Username ?

[Change Password](#)

Syslog

System Logging Configuration

Report to server ☐

Server

Port

Date & Time

System Date and Time Configuration

Network Time Enabled ☒

Server

Daylight saving time ☐

Time zone

[Set date & time](#)

System description

System contact ?

System name ?

System location ?

Status

System

IP: 192.168.100.78 (Static)

MAC Address: 18-39-19-40-11-18

System time: 2019-03-21 14:13:10

Uptime: 1h 10m 17s

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

Status: Ready

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 <http://www.nist.gov/pml/div688/dst.cfm>.)
- **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

GeneralAccountsAudioNetworkSystemManagement

Showing Advanced SettingsLogin Renew 06:29Logout

Management

Manage system configuration and firmware

Restart

Restart device

Configuration

System configuration

Backup/DownloadDownload configuration

Restore/Upload

To restore/upload system configuration, drop a saved configuration file here, or click to choose a file.

Firmware

System update

Version: 1.8.1.20190215

New firmware

Choose FileNo file chosen

Update firmware

Status

System

IP: 192.168.100.78 (Static)
MAC Address: 18-39-19-40-11-18
System time: 2019-03-21 14:14:40
Uptime: 1h 11m 47s

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
Status: Ready

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.

Surface Mount Wall Speaker with InformaCast® and SIP

WL-SPKR-SMT-INF

WL-SPKR-SMT-2R

WL-SPKR-SMT-A

Users Guide

Version 1.8.1-20190215