Lightspeed

Cascadia
Networked Instructional Audio System
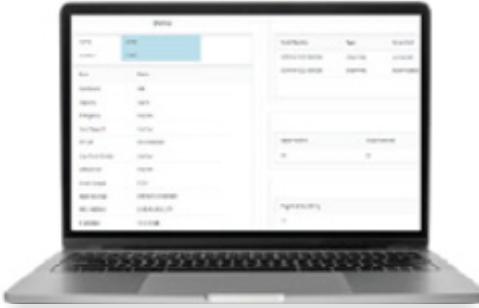
User Manual

Cascadia Web Console | Version 7.1.12

Table of Contents

System Requirements

The recommended deployment for the Cascadia Web Console is the dedicated Cascadia Software Appliance offered by Lightspeed. This purpose-built hardware provides the most reliable and optimized environment for the software.

CASCADIA SOFTWARE APPLIANCE SPECS

- **Operating System:** Ubuntu 22.04

- **CPU:** Quad Core 3.0 GHz

- **RAM:** 8GB

- **Disk:** Space 128GB

- **Ports:**

    - 3x USB 2.0

    - 3x USB 3.2

    - 3x Displayport 1.4

    - 2x 1GbE LAN

The Cascadia Web Console can also be hosted as a virtualized server using local computing resources. Below are the suggested minimum hardware requirements for running the Cascadia Web Console in a virtualized environment. Each software instance supports a single site.

**MINIMUM HARDWARE REQUIREMENTS**

- 2 GHz dual-core processor or better

- 8 GB RAM

- 50 GB hard drive space (available)

- Internet accessible network connection

Download Virtual Cascadia Software

The Cascadia Web Console software is available for download at downloads.lightspeed-tek.com.

- To request access to the files, send a request to Service@lightspeed-tek.com or contact Lightspeed at 800.732.8999. Lightspeed will send you an invitation email to create an account to access the downloads.

- Once signed in, click on the Cascadia Software Download folder.

- Download the files in the Cascadia Web Console Installation Software folder to use in the installation of the Cascadia Web Console.

- The files in the Cascadia Released Components folder contain the latest firmware for the Cascadia products. These firmware files can be manually downloaded or accessed directly from within the Cascadia Web Console
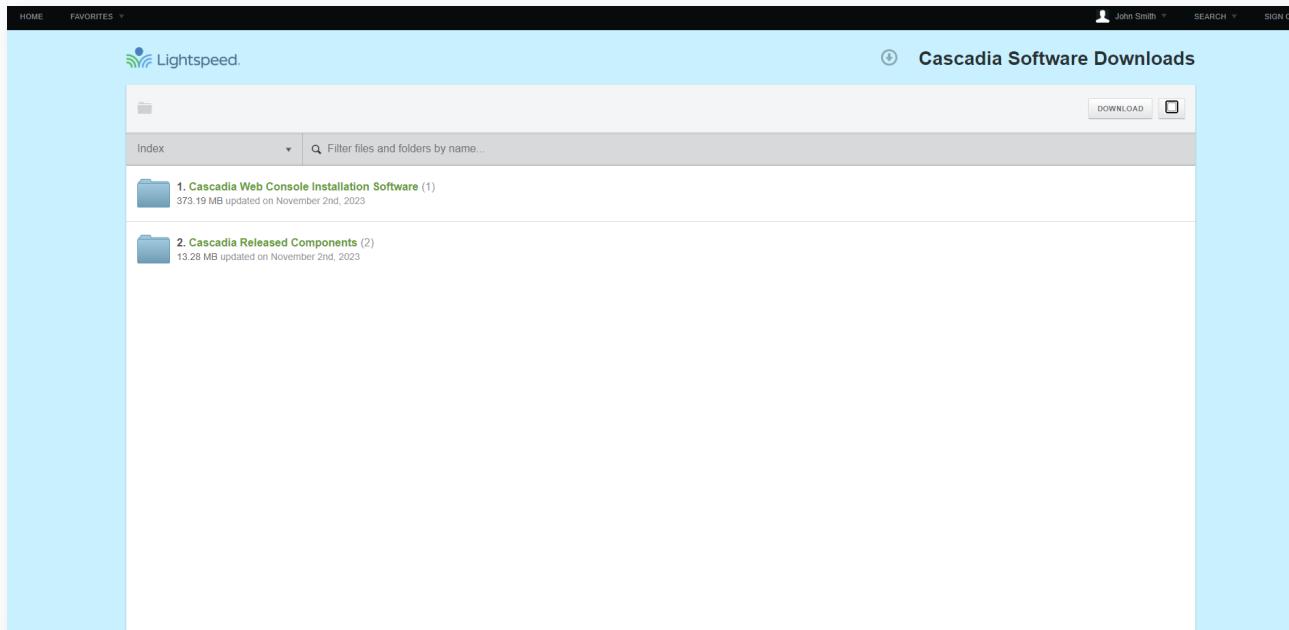
Download Virtual Cascadia Software

- The Cascadia Web Console Installation Software folder includes multiple installation options.

- The Cascadia Software has been tested for deployment in a virtual environment.

- Virtualized servers are available for VirtualBox, VMWare, or Hyper-V.
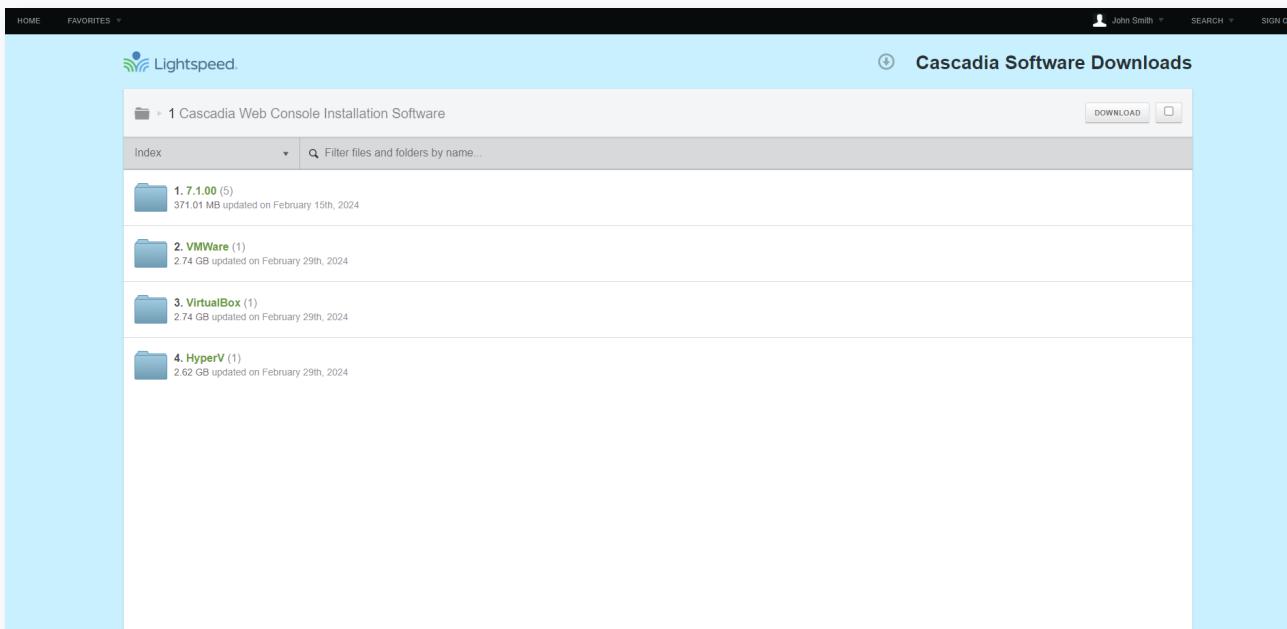
Getting Started

After the appliance has been connected to the network and booted, follow these steps:

1. Locate the IP Address

    • By default, the appliance will obtain an IP address from your network via DHCP.
      Scan your network to identify the assigned IP address.

2. Accessing the Cascadia Web Console

    • Open a web browser.

    • Navigate to:

    • http://<Console_IP_Address>:3000

    • Example: http://192.168.1.5:3000

    • Log in using:

    • Username: admin

    • Password: lightspeed

3. Accessing Advanced Tools (Webmin)

    • For advanced network and Linux tools, open a browser and go to:

    • http://<Console_IP_Address>:10000

    • Example: http://192.168.1.5:10000

    • Log in using:

    • Username: cascadia

    • Password: l34rning

Network Settings

When a C25 base is connected to the same network as the Cascadia Web Console, the base will look for the web console using a specific DNS entry.

    • Reserve an IP address for the Cascadia Web Console server using the server's MAC address.

    • Add a DNS entry using "cascadia-console" for the server IP address.

    • This will enable the C25 bases to find the server when they are connected to the network.

Logging In to the Cascadia Web Console

Enter **http://cascadia-console:3000** into a web browser to access the Cascadia Web Console.

User ID: **admin**

Password: **lightspeed**

Change password

The default login for the Cascadia Web Console is "lightspeed". For security purposes, it is strongly recommended that you change the default password immediately upon first login. Click the "Change Password Now" button to create a new, secure password.

After updating the password, a Recovery Code will be generated. This code can be used to reset the password if it is ever forgotten. Please store the Recovery Code in a secure and accessible location.
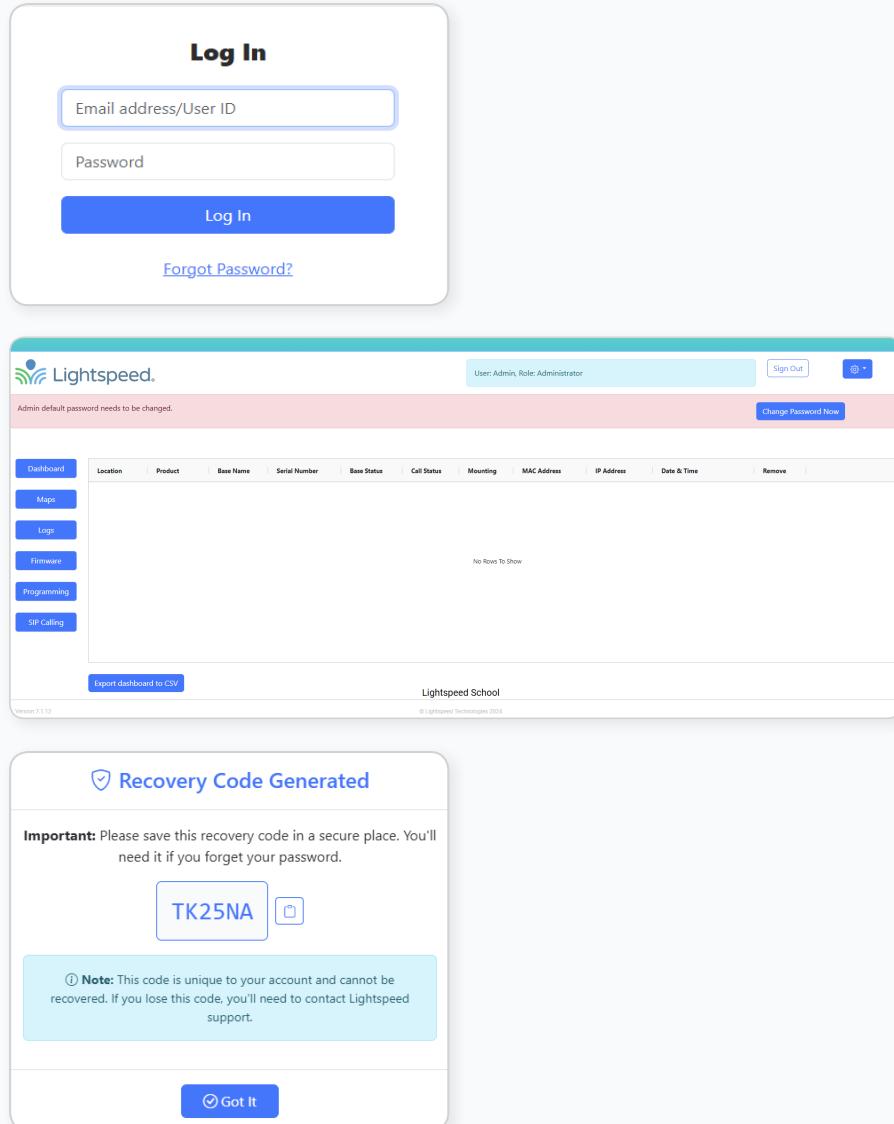
Log In

Email address/User ID

Password

Log In

Forgot Password?

Admin default password needs to be changed.

Change Password Now

No Rows To Show

Export dashboard to CSV

Lightspeed School

🛡 **Recovery Code Generated**

Important: Please save this recovery code in a secure place. You'll need it if you forget your password.

TK25NA

ⓘ **Note:** This code is unique to your account and cannot be recovered. If you lose this code, you'll need to contact Lightspeed support.

✓ Got It

Forgotten Password Process

If a password is forgotten, click the "Forgot Password" link on the login page.

You will be prompted to enter the Recovery Code that was generated when the password was originally created. Enter this code to set a new password.
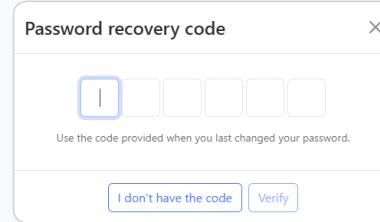
If the Recovery Code is not available, click "I don't have the code." Completing the reset process will require contacting Lightspeed Support at 1-800-732-8999. Provide the support representative with the displayed request code, and they will issue a corresponding response code that will allow the system to create a new password.

Password recovery code ✕

Use the code provided when you last changed your password.

I don't have the code   Verify

Contact Lightspeed Support ✕

🎧 Call Lightspeed Support
Phone: 1-800-732-8999

Your Request Code

973292 📋

Provide this code to Lightspeed Support

Enter Response Code from Lightspeed Support:
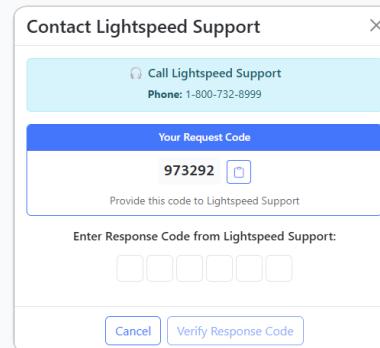
Cancel   Verify Response Code

Dashboard

The dashboard is the default page for the web console.
When a C25 base is connected to the network, it will show up in the dashboard table.

(See following page for definitions)

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
Location of Base User Defined	Product Model Number	Base Name User Defined	Serial Number of Base	Base Status	Call Status	Mounting Type	MAC Address of Base	IP Address of Base	Date & Time	Settings	Remove Base

Lightspeed

User: Admin, Role: Administrator   Sign Out   ⚙️▾

Navigation	Location	Product	Base Name	Serial Number	Base Status	Call Status	Mounting	MAC Address	IP Address	Date & Time	Remove
Dashboard	John C25	Cascadia C25	John C25 Test	02C25AS235000014	Disconnected	Idle	None	CE:5C:D7:1B:91:B7	10.100.210.16	11/3/2025, 4:06:08 PM PST	🗑️
Maps	(Test) Product...	Cascadia C25	(Test) Produc...	02C25ZS234300150	Ready	Idle	None	E2:26:CB:CF:55:5B	10.1.100.196	11/3/2025, 6:45:02 PM PST	
Logs	(Test) Product...	Cascadia C25	Demo 2	02C25AS242000031	Ready	Idle	Topcat Cas...	6A:40:9C:61:EE:18	10.1.100.198	11/3/2025, 6:45:01 PM PST	
Firmware											
Programming											
SIP Calling											

Export dashboard to CSV

Lightspeed School

NAVIGATION

⑬	⑭
Export dashboard to CSV	School Name User Defined

Dashboard Definitions

1. **Location:** Alphanumeric user defined location of the base. New bases on the network will have no location data.

2. **Product:** Product model number.

3. **Base Name:** Alphanumeric user defined name of the base. New bases on the network will have no name data. If left blank this field will default to the location data.

4. **Serial Number:** Serial number of base.

5. **Base Status:** Current status of the base.

   • **Disconnected:** Base has missed three network health checks and can no longer be found on the network.

   • **Emergency/Emergency Nearby:** If an emergency alert is triggered from a base on the network with a paired mic, the status of that base will change to Emergency. If the alert comes from a non-paired mic, the status will change to Emergency Nearby.

   • **Help Requested/Help Requested Nearby:** If a non-emergency alert is triggered from a base on the network with a paired mic, the status of that base will change to Help Requested. If the alert comes from a non-paired mic, the status will change to Help Requested Nearby.

   • **Idle:** Base is in full power mode and has passed a network health check.

6. **Call Status:** Current call status of the base.

   • **Idle:** No call currently being made.

   • **Ringing:** Call in progress.

   • **Busy:** Destination phone not available.

   • **Connected:** Call connected and in progress.

   • **Failed:** Call not able to be initiated for unknown reason.

   • **Disconnected:** Base status is Disconnected.

7. **Mounting Type:** Indicates if base is installed inside of a Topcat Cascadia ceiling enclosure.

8. **MAC Address:** MAC address of base.

9. **IP Address:** IP Address assigned to base.

10. **Date & Time:** Timestamp of the last known good network health check for a base. Health checks are performed every 5 seconds and the timestamp will flash green.

11. **Settings:** Settings menu used to Update software, Change admin password, or enable HTTPS between web console and bases.

12. **Remove:** Remove a base from the dashboard. Only available for disconnected bases.

13. **Export Dashboard:** Export all information in dashboard to a CSV file.

14. **School Name:** User defined

Settings Options

Update Cascadia Web Console: Checks for and installs available updates to the Cascadia Web Console software. This function requires an active internet connection.

Change Password: Allows the user to update the login password for the Cascadia Web Console. Updating the password will generate a new Recovery Code for use with the Forgot Password process.

Enable HTTPS on Bases: By default, the Cascadia system communicates over HTTP between the bases and the Cascadia Web Console. This option enables secure HTTPS communication.

Note: After toggling this feature on or off, a propagation period of up to 30 minutes may be required for changes to take effect.

Sign Out

Update Cascadia Web Console
Change Password
Enable HTTPS on Bases
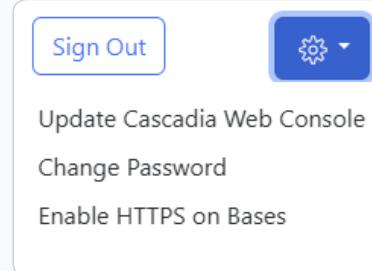
Base Details: Status

NOTE: Double clicking on a base in the dashboard brings up a details page for that base.

Name: Field to enter name for the base.

Location: Field to enter location of the base. Required field for alerts.

Backend: IP address that base is reporting status to.

Dashboard: IP address that base is reporting status to.
Changing this field may disconnect the base from the console.

Network: State of network connectivity.

Emergency: State of emergency alert.

Help Request: State of Help Request.

SIP Call: State of call.

Low Power Mode: State of power mode.

SafetyMute: Indicator for system mute due to PageFirst, Relay Input, or Input Priority.

Mounting: Indicates if base is installed inside of a Topcat Cascadia ceiling enclosure.

Power Source: Power supply for the base.

Serial Number: Serial number of the base.

MAC Address: MAC address of the base.

IP Address: IP address assigned to the base.

DECT ID: DECT ID assigned to the base.

C25 App Version: Processor firmware version for base.

C25 FW Version: DECT/DSP firmware for base.

C25 OS Version: Operating System version for the base.

C25 HW Version: Hardware version for the base.

Runtime: Total time base has been on the network.

Last Restart: Timestamp of last time base was powered down and restarted.

Last Update: Timestamp of the last known good network health check for a base.

Status

Name:	Demo 2
Location:	(Test) Product Table 4
Backend:	http://cascadia-console:3002

Item	Status	
Dashboard:	Ready	
Network:	Active	
Emergency:	Inactive	
Help Request:	Inactive	
SIP Call:	Idle	
Low Power Mode:	Inactive	
SafetyMute:	Inactive	
Mounting:	Topcat Cascadia	
Power Source:	PoE+ 802.3at	
Serial Number:	02C25AS242000031	
MAC Address:	6A:40:9C:61:EE:18	
IP Address:	10.1.100.198	
DECT ID:	03C1A01E30	
C25 App Version:	7.1.12	
C25 FW Version:	7.1.17	
C25 OS Version:	7.1.05	
C25 HW Version:	R04	
Runtime:	1369 hours	
Last Restart:	10/14/2025, 11:47:47 AM PDT	
Last Update:	12/10/2025, 11:49:29 AM PST	

Base Details: Audio Settings

The audio settings for the base can be adjusted from either the front panel on the base or the Audio portion of the Base Details page. Click the edit icon to adjust the audio settings.

Audio

Input Volume	Output Volume	Tone	Edit
70	40	55	✏️

Edit Base Audio

Input Volume		70
Output Volume		40
Tone		55

Cancel   Ok

When using the PageFirst sensor, adjusting the sensitivity of the system can be done in the Base Details page. Click the edit icon to adjust the sensitivity level. Setting the sensitivity to 0 will disable this feature.

PageFirst Sensitivity

PageFirst Sensitivity	Edit
14	✏️

Edit PagingFirst Sensitivity

| Sensitivity Level | | 14 |

Cancel   Ok

Base Details: Status History

The base details page includes a Status History that shows displays the last eight events associated with the base.

All events for all bases are saved in a global log file that can be exported using the Logs menu button.

Status History

Date & Time ↓	Event	
9/15/2023, 4:00:47 PM PDT	update page first sensitivity request	
9/15/2023, 3:57:05 PM PDT	audio settings change	
9/15/2023, 3:57:03 PM PDT	audio settings change	
9/15/2023, 3:32:49 PM PDT	MIC Connected change	
9/15/2023, 3:32:34 PM PDT	MIC Connected change	
9/15/2023, 3:30:43 PM PDT	audio settings change	

Double clicking an event will bring up the Log Entry Details. The log data is saved in a JSON format.

Log Entry Details ✕

```
{
    "serialNumber": "02RBNZS231800074",
    "origin": "basestation",
    "event": "audio settings change",
    "status": {
        "InputVolume": 5,
        "OutputVolume": 100,
        "Tone": 50,
        "Mute": false
    },
    "timeStamp": 1694818625194,
    "dateTime": "9/15/2023, 3:57:05 PM PDT"
}
```
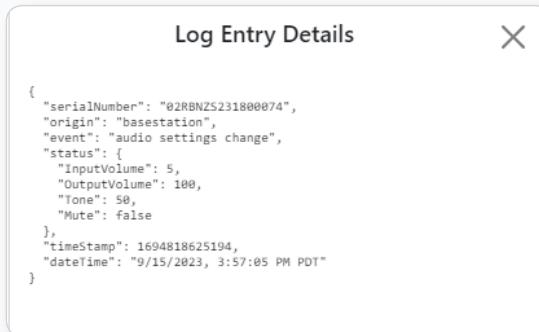
Maps

The Cascadia Web Console has a map feature that can be set up to give a visual representation of the Base Status from the Dashboard. If alerts have been set up in the Cascadia Web Console, the status of the alerts will also be shown on the map.
For details on how to set up the map, see the "Cascadia C25 Installation Addendum".

Logs

Logs for all the bases on the network are saved as a system log. As a default, the settings for events to be logged are set to the maximum. This system log can be downloaded by clicking the "Download System Logs" button.

LOG LEVEL: Chose the level of detail included in log events.

LOG HTTP TRAFFIC: Log network traffic associated with events.

LOG DXC TRAFFIC: Log wireless traffic associated with events.

LOG SIP TRAFFIC: Log SIP call information associated with events.

Basestation Log Configuration

Log Level	Verbose ▾
Log HTTP Traffic	True ▾
Log DCX Traffic	True ▾
Log SIP Traffic	True ▾

Ok

System Logs

Download System Logs

Firmware: Download

Firmware updates can be downloaded directly to the Cascadia Web Console using an internet connection or can be manually loaded. Firmware files for the C25, Clearmike, Sharemike, and Media Connector are included in a firmware bundle.

Cascadia Available Updates

Login to Cascadia Downloads

Login to download all available updates from downloads.lightspeed-tek.com

Manually Import Bundle

Choose File | No file chosen | Upload

Choose a file before Pressing the Upload button

Select Firmware Bundle

Bundle Name	C25 APP	C25 FW	CMT	MCN	SMN	remove
☐ Cascadia_Release_Bundle_23-10-30	0.6.1	7.0.11	7.0.10	6.1.06	6.1.08	🗑
☐ Cascadia_Release_Bundle_23-10-31	0.6.1	7.0.11	7.0.11	6.1.06	6.1.08	🗑
☐ Cascadia_Release_Bundle_23-11-02	0.6.2	7.0.11	7.0.11	6.1.06	6.1.08	🗑

Firmware: Update

Applying a firmware bundle update to a base will also update all paired devices. Bases can be updated individually or in bulk using the check box. The devices that will be updated are highlighted in yellow.

Select Firmware Bundle

	Bundle Name	C25 APP	C25 FW	CMT	MCN	SMN	remove
☐	Cascadia_Release_Bundle_23-10-31	0.6.1	7.0.11	7.0.11	6.1.06	6.1.08	🗑
☐	Cascadia_Release_Bundle_23-11-02	0.6.2	7.0.11	7.0.11	6.1.06	6.1.08	🗑
☑	release0.6.3	0.6.3	7.0.11	7.0.11	6.1.06	6.1.08	🗑

Select one or more bases to update

	Location	Product	Base Name	Serial Number	C25 APP	C25 FW	Paired Devices
☐	C107	Cascadia C25	Physics 1	02RBNZS231800074	0.6.2	7.0.11	CMT 1 : 7.0.11
							CMT 2 : 7.0.11
☐	C101	Cascadia C25	ELA 1	02RBNZS231800060	0.6.2	7.0.11	CMT 1 : 7.0.11
							CMT 2 : 7.0.11
☐	C109	Cascadia C25	Math 1	02C25ZS234300244	0.6.3	7.0.11	CMT 1 : 7.0.11
☐	C108	Cascadia C25	Math 2	02C25ZS234300079	0.6.3	7.0.11	CMT 1 : 7.0.11
							SMN 2 : 6.1.08
							MCN : 6.1.06

Apply Bundle

Pressing the Apply Updates button will push the update packages to the selected bases.

bundle to be applied: release0.6.3
number of bases to apply to: 0

Apply Updates

Programming: Stand Alone

The programming web page has options to pick an integration partner and to program the buttons on the paired Clearmike.

select an integration partner

The **Standalone** selection can be used for generic integrations if a building is equipped with an alert notification system.

The **Alert Button** can be programmed to control the contact closure on the rear panel of the C25, which external systems can use to perform a prescribed action, such as notifying the appropriate parties of a classroom alert.

Alternatively, the **Alert Button** can be programmed to activate a contact closure followed by a SIP call to control both functions with a single button press.

Alert Timeout Value

The Alert Timeout Value controls how long alerts are displayed in the Dashboard. This is a Cascadia Web Console specific setting and does not control other third-party systems. Value can be set between 0 and 3600 seconds.

program buttons on the clearmkie

Button 1 or **Button 2** can be programmed to initiate a SIP call, if that feature is set up using the SIP Calling web page.

Disable buttons: All buttons can be disabled by selecting the None option.

Select Integration Partner — Standalone ▾

BUTTON 1
BUTTON 2
ALERT BUTTON
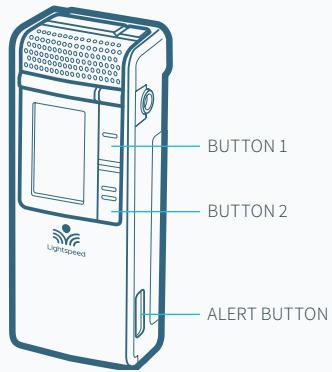
Button 1 — None ▾ → None / SIP call

Button 2 — None ▾

Alert Button — None ▾ → None / Contact closure / Contact closure with SIP call

Alert Timeout Value — 600

Ok

Programming: Integration Partners

OPTIONS OTHER THAN STANDALONE

For options other than Standalone, the integration is handled through the network.

Select Integration Partner   Standalone ▾

Standalone
Valcom IP6000
Bogen E7000
Rauland TCU
CareHawk CH2000IP
Raptor
Singlewire
Revolution
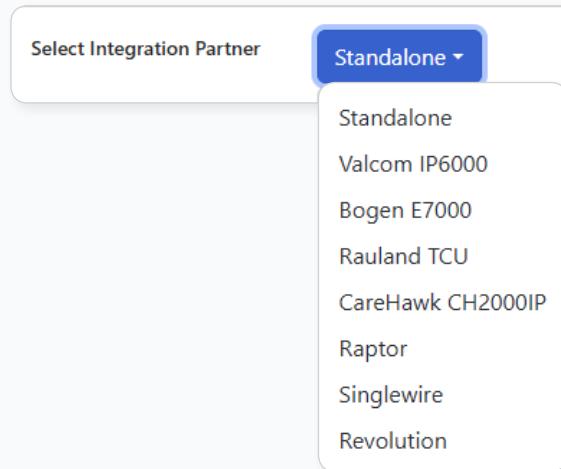
PROGRAM BUTTONS ON THE CLEARMKIE

The **button programming options** control what is displayed on the microphone screen and the commands sent over the network. The prescribed actions that are activated with the microphone command signals are setup, customized, and controlled by the integration partner system.

Button 1 and **Button 2** have the same programming options. The options include a Help Request, SIP call, and Check-in commands. One option combines the Help Request and SIP call into a single button.

The **Alert Button** can be programmed to activate an Emergency Alert or the combined action of an Emergency Alert with a SIP call.

Disable buttons: All buttons can be disabled by selecting the None option.

Button 1   SIP call ▾
Button 2   Non-emergency alert ▾
Alert Button   Emergency alert ▾

None
Non-emergency alert
Non-emergency alert with SIP call
SIP call
Checkin

None
Emergency alert
Emergency alert with SIP call
Contact closure
Contact closure with SIP call
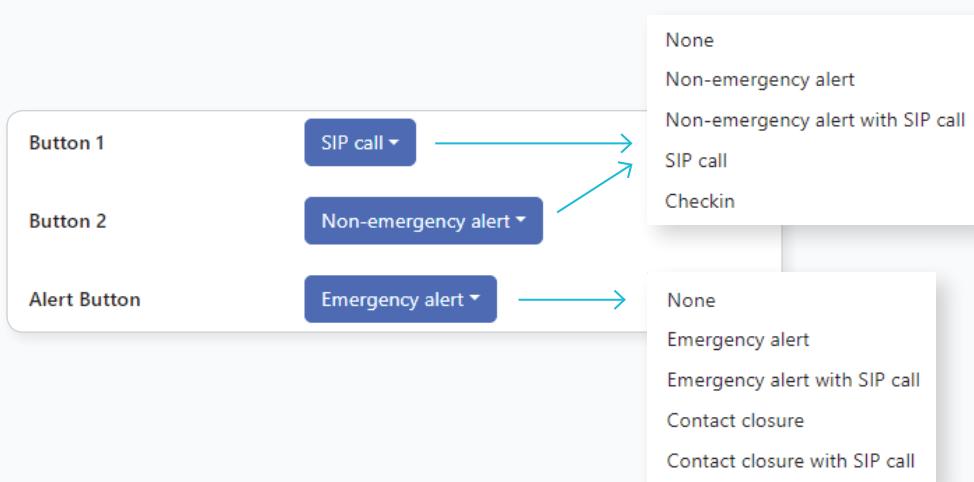
SIP Calling

Use the SIP Calling web page to integrate with a school's phone system to enable SIP calls.
Follow the phone system instructions on how to register a third-party SIP device.

Base and Destination URI are formatted as sip:{extension}@{server}   Example: sip:1001@10.1.100.90
Server address is formatted as {IP Address}:{Port}   Example 10.1.100.90:5060

Double click on a base to edit the individual base SIP settings.   a

Global SIP Settings

Destination URI	URI sip:1002@10.1.100.90	— SIP address to call
Server	Server 10.1.100.90:5060	— IP address of phone server
Register	False ▾	— Enables SIP registration with phone server, if needed
Protocol	TLS 1.2 ▾	— Protocol type: TCP, UDP, TLS 1.2
SIP Proxy	False ▾	
Upload Certificate	Browse... No file selected. Upload	— Client TLS certificate for SIP over TLS, if needed
	Current Certificate: No File Uploaded	
	Save	

Individual Base SIP Settings (Active Bases Only)

Base	Serial Number	Authorization ID	Location	Base URI	Password
Demo 2	02C25AS242000031		(Test) Product Table 4	sip:1001@10.1.100.80	ijhioujh9ojrioeed

Edit Base SIP Settings   ✕

Base URI	URI sip:1001@10.1.100.80	— SIP address of base
Password	Password ijhioujh9ojrioeed	— Password required by phone system
Authorization ID	Authorization ID Authorization	— SIP Authentication username used when the device authenticates with the PBX

Save Cancel

Lightspeed
A Learning Company

Dedicated to Access for All

We strive to make a remarkable difference for teachers and students by creating Access to powerful in-the-moment insights to the learning process. Our audio and video solutions improve student engagement, enable teachers to activate small groups, and encourage collaboration.

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