



## SOFTWARE OPERATION

# Cascadia Web Console

### HEADLINE

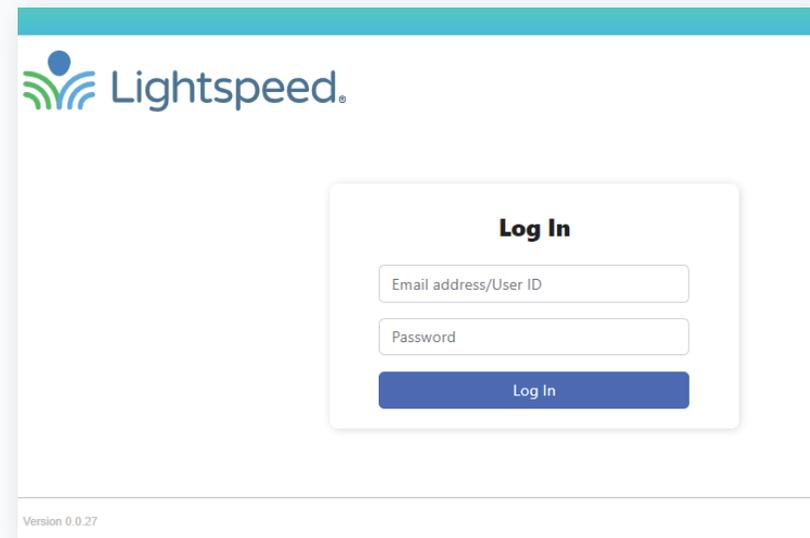
The Cascadia Web Console is a web interface for the network software that monitors all the C25 bases on a network.

#### **Installing the Cascadia Web Console server software**

For installation instructions see “Cascadia Software Installation Guide” document.

#### **Logging In**

Using a computer on the same network as the Cascadia Web Console server, open a web browser with the address <http://cascadia-console:3000/>. This address will open the log in page for the Cascadia Web Console. Log in using your organization’s network credentials.





# 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)

The screenshot shows the Lightspeed dashboard interface. At the top left is the Lightspeed logo. To the right of the logo, the user information is displayed: "User: Admin, Role: Administrator" and a "Sign Out" button. Below the logo is a vertical navigation menu with buttons for "Dashboard", "Maps", "Logs", "Firmware", "Programming", "SIP Calling", and "LDAP". The main area contains a table with columns: Location, Product, Base Name, Serial Number, Base Status, Call Status, Date & Time, and Remove. The table lists several bases with their respective details. At the bottom of the dashboard, the school name "LightSpeed School" is displayed.

Numbered callouts (1-8) point to the following elements:

- 1: LOCATION OF BASE USER DEFINED (points to the Location column header)
- 2: PRODUCT MODEL NUMBER (points to the Product column header)
- 3: BASE NAME USER DEFINED (points to the Base Name column header)
- 4: SERIALNUMBER OF BASE (points to the Serial Number column header)
- 5: BASE STATUS (points to the Base Status column header)
- 6: CALL STATUS (points to the Call Status column header)
- 7: DATE & TIME (points to the Date & Time column header)
- 8: REMOVE BASE (points to the Remove column header)

Additional callouts at the bottom of the image:

- NAVIGATION (points to the vertical menu)
- SCHOOL NAME USER DEFINED (points to "LightSpeed School")

Location	Product	Base Name	Serial Number	Base Status	Call Status	Date & Time	Remove
C109	Cascadia C25	Math 1	02C25ZS234300244	Ready	Idle	11/9/2023, 4:17:51 PM PST	
C108	Cascadia C25	Math 2	02C25ZS234300079	Ready	Idle	11/9/2023, 4:17:51 PM PST	
C107	Cascadia C25	Physics 1	02RBNZS231800074	Low Power Mode	Idle	11/9/2023, 4:17:48 PM PST	
C101	Cascadia C25	ELA 1	02RBNZS231800060	Low Power Mode	Idle	11/9/2023, 4:17:52 PM PST	
DV49	Cascadia C25	Mike DV49	02C25ZS233900049	Disconnected	Idle	11/1/2023, 7:04:25 AM PDT	
	Cascadia C25		02C25ZS233900037	Disconnected	Idle	11/9/2023, 3:24:49 PM PST	
	Cascadia C25		02C25ZS233900051	Disconnected	Idle	11/8/2023, 12:33:45 PM PST	



# 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 3 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.
  - **Low Power Mode:** After 1 hour of inactivity or audio input, the base will enter a low power mode. Check manual for mention of low power/standby
  - **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
  - **Ringin:** 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. **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.
8. **Remove:** Remove a base from the dashboard. Only available for disconnected 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.

**Dashboard:** Base status shown on dashboard

**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

**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:	Math 1
Location:	C109
Item	Status
Dashboard:	Low Power Mode
Network:	Active
Emergency:	Inactive
Help Request:	Inactive
SIP Call:	Idle
Low Power Mode:	Active
SafetyMute:	Inactive
Power Source:	PoE+ 802.3at
Serial Number:	02C25ZS234300244
MAC Address:	CE:C4:1A:EE:A1:52
IP Address:	10.1.100.131
DECT ID:	03C1A00360
C25 App Version:	7.0.03
C25 FW Version:	7.0.11
C25 OS Version:	7.0.05
C25 HW Version:	R04
Runtime:	192 hours
Last Restart:	11/21/2023, 3:55:21 PM PST
Last Update:	11/29/2023, 4:00:33 PM PST



# Base Details: Paired Devices

## PAIRED DEVICES

Lists all the devices that are currently paired with the base. These devices include the Clearmike, Sharemike, and Media Connector (MCN).

**Serial Number:** Serial number of device

**Type:** Device type

**Connected:** Status of wireless connection between the device and the base.

**FW Version:** Firmware version for device

**Student Mode:** Toggle on/off for Student Mode. Only available with Clearmike.

**Ext Mic Detect:** Toggle on/off external mic detection. Only available with Clearmike.

**Unpair:** Delete pairing between the device and the base.

Paired Devices						
Serial Number	Type	Connected	FW Version	Student Mode	Ext Mic Detect	Unpair
03CMTZS234200134	Clearmike	connected	7.0.11	<input type="checkbox"/>	<input type="checkbox"/>	
03SMNZR203900013	Sharemike	connected	6.1.08			
03MCNAR222601115	Media Connector	connected	6.1.06			

Clearmike Details	
Item	Status
MIC index:	1
Serial Number:	03CMTZS234200158
DECT ID:	03C1A0005E
Type:	Clearmike
FW Version:	7.0.10
HW Version:	3
Pairing Status:	paired
Connected:	connected
Last Paired:	4/28/2022, 1:48:12 PM PDT
Battery:	100
Charging Status:	not charging
Mic Volume:	0
Mute:	muted

## CLEARMIKE DETAILS

Double clicking on a device in the list brings up details on that device.

**MIC index:** Two mics can be paired to a single base. Mic 1 or Mic 2.

**Serial Number:** Serial number of device

**Type:** Device type

**FW Version:** Firmware version for device

**HW Version:** Hardware version for device (Clearmike only)

**Pairing Status:** Confirmation that device is paired with base

**Connected:** Status of wireless connection between the device and the base.

**Last Paired:** Timestamp of when device was paired with base

**Battery:** Battery level of microphone. 100, 50, and 10 are the levels shown.

**Mic Volume:** Volume setting of mic. 10 to 100.

**Mute:** Mute status of mic.



# 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

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



# 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.

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 X
{
  "serialNumber": "82RBNZ5231800074",
  "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 Software Installation Guide”.





# 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](https://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
<input type="checkbox"/> Cascadia_Release_Bundle_23-10-30	0.6.1	7.0.11	7.0.10	6.1.06	6.1.08	
<input type="checkbox"/> Cascadia_Release_Bundle_23-10-31	0.6.1	7.0.11	7.0.11	6.1.06	6.1.08	
<input type="checkbox"/> 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
<input type="checkbox"/> Cascadia_Release_Bundle_23-10-31	0.6.1	7.0.11	7.0.11	6.1.06	6.1.08	
<input type="checkbox"/> Cascadia_Release_Bundle_23-11-02	0.6.2	7.0.11	7.0.11	6.1.06	6.1.08	
<input checked="" type="checkbox"/> 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
<input type="checkbox"/> C107	Cascadia C25	Physics 1	02RBNZS231800074	0.6.2	7.0.11	CMT 1 : 7.0.11 CMT 2 : 7.0.11
<input type="checkbox"/> C101	Cascadia C25	ELA 1	02RBNZS231800060	0.6.2	7.0.11	CMT 1 : 7.0.11 CMT 2 : 7.0.11
<input type="checkbox"/> C109	Cascadia C25	Math 1	02C25ZS234300244	0.6.3	7.0.11	CMT 1 : 7.0.11
<input type="checkbox"/> 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



# 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

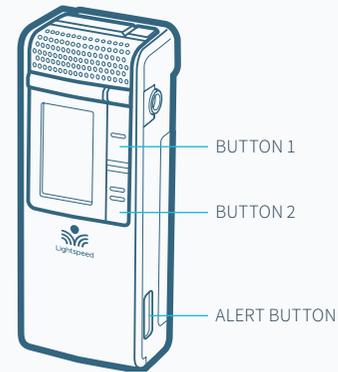
The Alert Timeout Value controls how long alerts are displayed in the Dashboard. This is a Cascadia Web Console specific setting and does not control other third-party systems. Value can be set between 0 and 3600 seconds.

## 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 None ▾ → None  
SIP call

Button 2 None ▾ → None  
Contact closure

Alert Button None ▾ → None  
Contact closure with SIP call

Alert Timeout Value

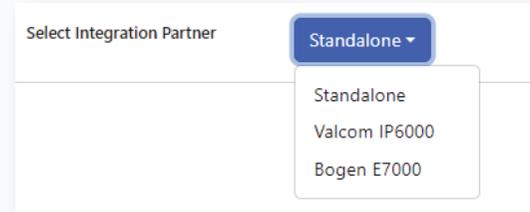
Ok



# Programming: Integration Partners

## OPTIONS OTHER THAN STANDALONE

For options other than Standalone, the integration is handled through the network. For details on how to set up the network integration with various partners, see the “Cascadia Software Installation Guide”.



## 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.





# 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.

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

**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: True ▾

Protocol: udp ▾ — PROTOCOL TYPE: TCP OR UTP

Ok

**Individual Base SIP settings (active bases only).**

Base	Serial Number	Location	Base URI	Display Name	Password
Physics 1	02RBNZS231800074	C107	sip:1007@10.1.100.90	1007	794kfjgvejf9gk4of0ck4i50gkfk...
ELA 1	02RBNZS231800060	C101	sip:1001@10.1.100.90	1001	54kldldofihls4l6k43aaal3ahdcbn...
Math 1	02C25ZS234300244	C109	sip:1009@10.1.100.90	1009	dcd0f470496990e3ea5ad8aac4...
Math 2	02C25ZS234300079	C108	sip:1008@10.1.100.90	1008	44cb3d032932504b001217f792...

**Edit Base SIP Settings**

Base URI: URI sip:1007@10.1.100.90 ✓ — SIP ADDRESS OF BASE

Display Name: Display Name 1007 ✓ — DISPLAY NAME WHEN PLACING A CALL

Password: Password 794kfjgvejf9gk4of0ck4i50gkfk ✓ — PASSWORD REQUIRED BY PHONE SYSTEM

Cancel Ok



# LDAP

Use the LDAP web page to integrate with a school's LDAP system.

**SERVER:** IP address or system name of LDAP server.

**SERVER PORT:** Port number to communicate with LDAP server.

**ADMIN DN:** Distinguished name of LDAP account with read access.

**ADMIN PASSWORD:** Password for above LDAP account.

**SEARCH BASE DN:** Distinguished name of LDAP organizational unit where webapp user accounts reside.

**ATTRIBUTE:** Name of LDAP user attribute that provides webapp access.

### LDAP Setup

Server	IP/DNS	dc.yourcompany.com
Server Port	Port	389
Admin DN	DN	CN=ldapsvc,OU=Users,DC=yourcompany,DC=cc
Admin Password	Password	*****
Search Base DN	DN	OU=Users,DC=yourcompany,DC=com
Attribute	Role	cascadiaRole

Ok

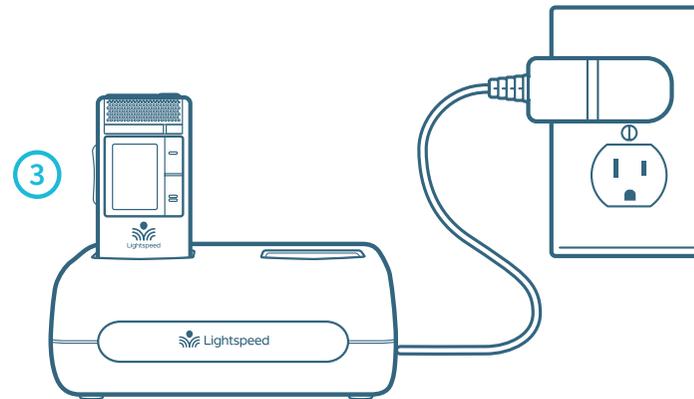
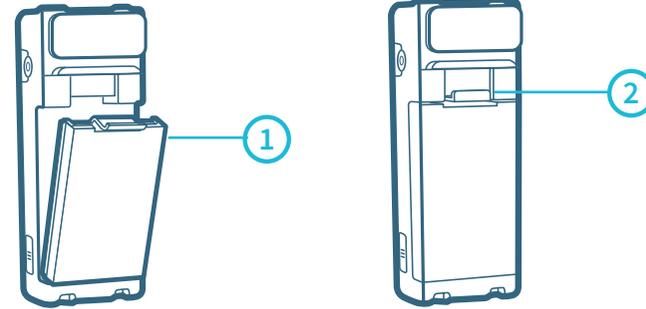


## MAINTENANCE & TROUBLESHOOTING

# Clearmike Battery Replacement

### BATTERY PART #L3.7V

1. Push down on the latch and carefully pull the battery pack away from the Clearmike.
2. Insert new battery pack as shown and make sure the latch is secure.
3. Place the Clearmike in a cradle charger to charge the battery pack.

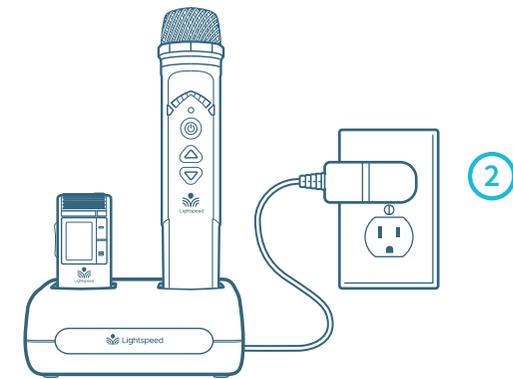
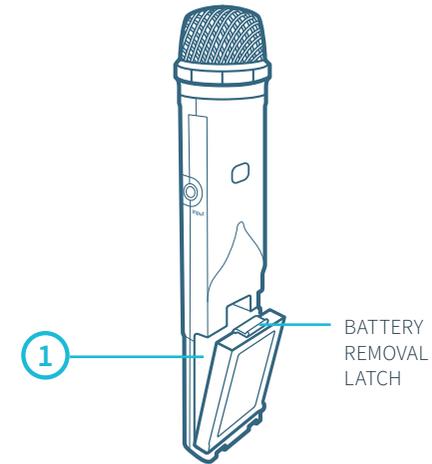




# ShareMike Battery Replacement

## BATTERY PART #L3.7V

1. Push down on the latch and carefully pull the battery pack away from the ShareMike.
2. Insert new battery pack as shown and make sure the latch is secure.
3. Place the ShareMike in a cradle charger to charge the battery pack.





# Troubleshooting

**PROBLEM: Low battery indication:** Most problems are directly related to low battery power. Please run through the “Battery Check” items first. For remaining troubleshooting, use known good, fully-charged batteries.

**SOLUTION:** Battery Check

- Confirm batteries are charged each night. A solid red light on the battery status light indicates a low battery.
- Confirm proper batteries are used: Clearmike and Sharemike require the Lightspeed #L3.7V rechargeable battery pack.
- Make sure the microphones obtain a full charge. A full charge takes 5-6 hours.
- When charging the transmitter, the red charging light is solid. The green light will be solid when a full charge is reached.

**PROBLEM: Microphone doesn’t indicate a “Ready” signal (solid white light)**

**SOLUTION:** Follow these steps to ensure the system is ready to use.

- Power cycle the microphone using either the Power/Mute button or by placing in a charger and then removing it. Wait for up to 30 seconds for the white light to turn solid, indicating READY for operation.

**PROBLEM: Low volume or feedback**

**SOLUTION:** Follow these steps to eliminate low volume or feedback:

- If the volume is too high, feedback will occur. Adjust accordingly.
- Adjust the volume level on the Clearmike or move the microphone further from the audio system speakers.

**PROBLEM: No sound from speaker and wireless components**

**SOLUTION:** Follow these steps to produce sound from C25:

- Confirm that the white POWER light located on the front panel of the C25 is on.
- Confirm the microphone is powered on and linked to the C25. The Talk/Mute light will be white indicating the microphone is linked.
- Tap the Power/Mute button to confirm that microphone is not muted. The Talk/Mute light on the front of the microphone will be solid blue indicating microphone is not muted.
- Check speaker connections on the C25. Make sure the cables are properly connected (see page 8 of this manual or the Installation Guide for more information).
- Slowly turn up the volume level while talking into the microphone.

**If you still have questions after reviewing these instructions, call Lightspeed Technical Services at 800.732.8999, 5am–5pm, PST.**

Customers outside the U.S. should contact their local reseller.



# Tips for Optimum Audio Performance

- **Speak in a natural voice.** A normal conversational speech level will provide an adequate signal. It is not necessary to increase the intensity of your voice—the audio system provides adequate amplification (approximately 5–10 dB) above ambient room noises.
- Avoid **wearing jewelry** that may rub or bump against the microphone.
- **Mute the microphone** during private conversations with a student, parent, or other classroom visitor. You can tell the mic is muted when the light turns white.
- **Recharge microphones each night.** When recharged nightly, operating time (actual usage) for the microphones will last through a typical school day.



## WARRANTY, SAFETY & SPECIFICATIONS

### Five-Year Limited Warranty

Lightspeed Classroom Audio Systems are guaranteed against malfunction due to defects in materials and workmanship for a period of five (5) years, beginning at the date of the purchase invoice. If such malfunction occurs, the product will be repaired or replaced (at Lightspeed's option) without charge during the warranty period.

Lightspeed's Warranty Exchange Program applies to all classroom audio systems within the five (5) year warranty period. If a classroom audio product or component has an issue that requires service, a refurbished replacement will immediately be sent to the customer to minimize downtime. Customers will receive the exchange product(s) or component(s) within 2-3 days. A prepaid return label will be included with exchanged products so original malfunctioned equipment can be returned to Lightspeed. Any exchanged equipment will remain covered under the original five-year warranty.

1. Warranty for C25 is five (5) years.
2. Warranty on Lightspeed NiMH and Lithium Polymer rechargeable batteries is one (1) year.
3. Warranty on microphones and components that support discontinued systems (FMA, SMA and FMCA) is one (1) year.
4. A prepaid shipping label will be provided by Lightspeed for warranty repairs within the United States. Customers outside the U.S. should refer to the Lightspeed website ([www.lightspeed-tek.com](http://www.lightspeed-tek.com)) for warranty repair instructions.
5. Warranty does not extend to finish, appearance items, or malfunctions due to abuse or operation other than specified conditions, nor does it extend to incidental or consequential damages. Repair by other than Lightspeed or its authorized service agencies will void this warranty. Information on authorized service agencies is available from Lightspeed Technologies, Inc.

**Our Service Department (800.732.8999, 5am–5pm, PST) will handle your repair or replacement needs.**

Customers outside the U.S. should contact their local reseller.



# Safety Warnings and Certifications (Pending Approval)

**CAUTION**

**RISK OF ELECTRICAL SHOCK**

**DO NOT OPEN**

**THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED.**

**The lightning flash** with arrowhead symbol inside an equilateral triangle is intended to alert the user to the presence of non insulated “hazardous voltage” within the product’s enclosure, which may be of sufficient magnitude to induce a risk of electric shock to persons.

**The exclamation mark** inside an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying this product.



**USE A LIGHTSPEED SUPPLIED BATTERY ONLY**



CAUTION: Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.



Battery subjected to extremely low air pressure that may result in an explosion or the leakage of flammable liquid or gas.

## CERTIFICATIONS



This product is listed to UL standards and requirements for electrical safety by Underwriters Laboratories Inc.



This product conforms with the essential requirements of the following European Union Directives: 2004/108/EC Electromagnetic Compatibility (EMC) and 2006/95/EC Low Voltage Directive (LVD).



Lightspeed Technologies launched a formal product recycle program in Europe that complies with the European Union Directive 2002/96/EC on Waste Electrical and Electronic Equipment (“WEEE Directive”). Please visit [www.lightspeed-tek.com](http://www.lightspeed-tek.com) for more information.



This product is manufactured using lead-free processes and is free of other materials harmful to the environment. It conforms to the most stringent new European guidelines for consumer products (RoHS).



# Précautions De Sécurité et Certifications



**ATTENTION**

**RISQUE D'ÉLECTROCUTION  
NE PAS OUVRIR**



**CONFORMÉMENT AUX NORMES D'INSTALLATION APPLICABLES, CE PRODUIT DOIT ÊTRE INSTALLÉ PAR UNE PERSONNE FAMILIARISÉE AVEC LA CONCEPTION ET LE FONCTIONNEMENT DU PRODUIT ET CONSCIENTE DES RISQUE ENCOURUS.**



**L'éclair flèche** dans un triangle équilatéral avertit l'utilisateur de la présence d'une "tension dangereuse" non isolée à l'intérieur de l'appareil, qui peut être d'une ampleur suffisante pour constituer un risque d'électrocution.



**Le point d'exclamation** contenu dans un triangle équilatéral avertit l'utilisateur de la présence d'importantes instructions d'exploitation et de maintenance dans la documentation qui accompagne ce produit.



UTILISEZ UNIQUEMENT LA BATTERIE LIGHTSPEED FOURNIE



ATTENTION: Risque d'explosion si la batterie est remplacée par un type incorrect. Mettre au rebut les batteries usagées selon les instructions.

## CERTIFICATIONS



Ce produit est certifié conforme aux normes et aux exigences UL en matière de sécurité électrique par Underwriters Laboratories Inc.



Ce produit est conforme aux principales exigences des directives de l'Union Européenne suivantes : 2004/108/EC Electromagnetic Compatibility (EMC) and 2006/95/EC Low Voltage Directive (LVD).



Lightspeed Technologies a lancé un programme de recyclage de produits en Europe conformément à la directive de l'Union Européenne 2002/96/CE relative aux déchets d'équipements électriques et électroniques (directive « DEEE »). Veuillez visiter notre page Web [www.Lightspeed-tek.com](http://www.Lightspeed-tek.com) pour plus de renseignements.



Ce produit est fabriqué en utilisant des processus sans plomb ni aucune autre matière nuisible à l'environnement. Il est conforme aux nouvelles règles européennes les plus strictes en matière de biens de consommation (RoHS).



# FCC Statements

## FCC STATEMENTS

**NOTE:** This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**NOTE:** LightSpeed Technologies is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**NOTE:** This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm (8") between the radiator & your body



# Canada, Industry Canada (IC) Notices

This device complies with Industry Canada license exempt RSS standard(s). This Class B digital apparatus complies with Canadian ICES-003 and CAN ICES-3(B)/NMB-3(B). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. The IC number for this device is 1732B-LSC25. This includes accessories such as the Clearmike (IC 1732B-LSCMT), Sharemike (IC 1732B-LSSMN) and Media Connector (IC 1732B-LSMCN).

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiation source and your body.

## **RF RADIATION EXPOSURE STATEMENT**

Your microphone is a radio transmitter and receiver. It is designed not to exceed the limits for exposure to radio waves (radio frequency electromagnetic fields) recommended by international guidelines. The guidelines were developed by Health Canada and include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

# Canada, Avis d'Industrie Canada (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003 et RSS-247. Son fonctionnement est soumis aux deux conditions suivantes: (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement. Le numéro IC de cet appareil est 1732B-LSC25. Ceci inclus les accessoires comme le Clearmike (IC 1732B-LSCMT), Sharemike (IC 1732B-LSSMN) et un Media Connector (IC 1732B-LSMCN).

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

## **DÉCLARATION D'EXPOSITION AUX RAYONNEMENTS RF**

Votre pied de micro est un émetteur-récepteur radio. Il est conçu pour ne pas dépasser les limites d'exposition aux ondes radio (champs électromagnétiques de fréquence radio) recommandées par les directives internationales. Les lignes directrices ont été élaborées par Santé Canada et comprennent une marge de sécurité importante destinée à assurer la sécurité de toutes les personnes, indépendamment de l'âge et de la santé.



# EU Declaration of Conformity

According to EU Directives EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/EU, RoHS 2011/65/EU

**Manufacturer:** Lightspeed Technologies, Inc.

**Address:** 11509 SW Herman Rd.  
Tualatin, Oregon 97062

*We herewith declare that the following systems comply with the appropriate basic safety and health requirements of the Directive based on its design and type, as brought into circulation by us. In case of alteration of the system, not agreed upon by us, this declaration will lose its validity.*

**Products:** Redcat, Topcat, 975, Access Link, Flexmike, Sharemike, Pod, Activate Station, Media Connector, Mobile PA

**Model Numbers:** RCN, TCN, 975, ALN, FMN, SMN, POD, ACT, MCN, MPA

As applicable, products conform to the standards listed below:

EN 62368-1:2014

IEC 62133:2012

EN 50385:2017

EN 50566:2017

EN 50663:2017

EN 62479:2010

ETSI EN 301 406 V2.2.2 (2016-09)

ETSI EN 301 489-1 V2.2.3 (2019-11)

ETSI EN 301 489-6 V2.2.1 (2019-04)

EN IEC 63000:2018

The Technical Construction File is available to proper authorities and the product is CE marked.

Lightspeed Representative

Date: December 6, 2022

Michael Frost, Compliance Engineer



# System Components

## STANDARD COMPONENTS

<b>C25</b>	Wireless audio base station
<b>24V-2.5A-NA</b>	24V/2.5A power supply for C25
<b>FSCC</b>	Transceiver cradle charger, power supply
<b>5V1C</b>	5V power supply for FSCC
<b>CMT</b>	Clearmike classroom transceiver with battery pack and lanyard
<b>L3.7V</b>	Lithium Polymer rechargeable battery pack for Clearmike, one per Flexmike
<b>FL</b>	Microphone lavalier cord
<b>SPEAKERS</b>	As ordered

## STANDARD COMPONENTS (OUTSIDE U.S. AND CANADA)

<b>C25G</b>	Wireless audio base station
<b>24V-2.5A</b>	24V/2.5A power supply for C25, specify country
<b>FSCC -INT</b>	Transceiver cradle charger, power supply
<b>5V1C -INT</b>	International 5V power supply for FSCC
<b>CMTG</b>	Clearmike classroom transceiver with battery pack and lanyard
<b>L3.7V</b>	Lithium Polymer rechargeable battery pack for Clearmike, one per Clearmike
<b>FL</b>	Microphone lavalier cord
<b>SPEAKERS</b>	As ordered

## OPTIONAL ACCESSORIES

<b>SMN</b>	Sharemike handheld transceiver with battery pack
<b>L3.7V</b>	Lithium Polymer rechargeable battery pack for Sharemike
<b>USB C</b>	Charging cable for Sharemike
<b>EMA</b>	Earset microphone with TRRS connector for Clearmike
<b>LMA</b>	Lapel microphone with TRRS connector for Clearmike
<b>MCN</b>	Media Connector with Access Technology, power adapter and power cord.



# System Specifications

## C25

<b>Description</b>	Wireless audio hub
<b>Wireless Communication</b>	Access Technology (1.9 GHz)
<b>Frequency Response</b>	20 Hz - 20 kHz Power Amp, 150 Hz - 6.5 kHz Wireless
<b>Power Supply Options</b>	24VDC/2.5A or PoE+ 802.3at
<b>Power Output</b>	40 WRMS total (20 WRMS/channel) with 24VDC supply
<b>Tone Control</b>	Bass/Treble control
<b>Ethernet</b>	10/100Mbps
<b>Audio Inputs</b>	Three (3) 3.5mm inputs, one S/PDIF coaxial digital input
<b>Audio Output</b>	One (1) 3.5mm output, one S/PDIF coaxial digital output
<b>Max Input/Output Level</b>	1.4VRMS / 1.4VRMS
<b>Total Harmonic Distortion</b>	<1%
<b>Analog Control Signals</b>	Inputs: PageFirst (25/70V page mute), Relay Input Output: Contact closure (initiated from microphone)
<b>Dimensions (W x H x D)</b>	9.0" x 6.1" x 1.2" (229mm x 155mm x 30mm)
<b>Weight</b>	17.5 oz (496g)
<b>Operating Temperature</b>	10°C to 40°C (50°F to 104°F)

## CLEARMIKE

<b>Description</b>	Pendant-style transceiver
<b>Earbud Lanyard</b>	Magnetic clasp with integrated earbud
<b>Wireless Communication</b>	Access Technology (1.9 GHz)
<b>Integrated Microphone</b>	Uni-directional electret
<b>Analog Audio I/O</b>	3.5mm TRRS
<b>Digital Audio I/O</b>	USB-C
<b>Control Buttons</b>	Power/mute, volume up/down, alert, two programmable
<b>Volume Control</b>	+/- 12dB
<b>Total Harmonic Distortion</b>	<1%
<b>Display</b>	E-paper display
<b>Battery Power</b>	3.7V LiPo battery pack

<b>Battery Life</b>	8 hours (fully charged)
<b>Charging</b>	Cradle charger or USB-C
<b>Dimensions (L x W x H)</b>	3.0" x 1.2" x 0.9" (76mm x 30mm x 23mm)
<b>Weight</b>	1.3 oz (39g)

## SHAREMIKE

<b>Description</b>	Handheld transceiver
<b>Wireless Communication</b>	Access Technology (1.9 GHz)
<b>Total Harmonic Distortion</b>	<1%
<b>Integrated Microphone</b>	Uni-directional electret
<b>Audio input</b>	3.5mm TRRS
<b>Battery Power</b>	3.7V LiPo battery pack
<b>Battery Life</b>	8 hours (fully charged)
<b>Charging</b>	2 contacts for cradle charging
<b>Power</b>	On/off button
<b>Registration</b>	Push button for registration with Access Link
<b>Dimensions (L x W x H)</b>	6.0" x 1.1" x 1.1" (153 x 28 x 28mm)
<b>Weight</b>	2.6 oz (73g)

## MEDIA CONNECTOR

<b>Description</b>	Wireless audio transceiver
<b>USB power</b>	5V USB-C connector
<b>Wireless communication</b>	Access Technology (1.9 GHz)
<b>Tone control</b>	1 bass/treble control
<b>Audio input</b>	Four (4) 3.5mm inputs
<b>Audio output</b>	Two (2) 3.5mm outputs
<b>Audio Link indicator</b>	1 LED on front panel
<b>Device registration</b>	Push button for Access Link
<b>Dimensions (W x H x D)</b>	7.6" x 5" x 1.13" (193 x 127 x 29mm)
<b>Weight</b>	9.6 oz. (272g)



## 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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