Lightspeed

Activate

Instructional Audio System

User Manual

Table of Contents

# ⚠ Important Safety Instructions

1. Do not use the apparatus near water.

2. Clean only with dry cloth.

3. Do not block any ventilation openings.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

5. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding- type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the outlet.

6. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

8. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

9. When the mains plug or appliance coupler is used as the disconnect device, it shall remain readily operable.

10. Please keep the unit in a good ventilation environment.

11. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

12. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

13. WARNING: Battery pack shall not be exposed to excessive heat such as sunshine, fire or the like. (1) The battery pack is not serviceable. Do not open, disassemble, or service any battery pack. (2) Do not crush or cut or puncture the internal battery cell. (3) Do not short-circuit the battery, or expose it to water or other liquids. (4) Do not touch the internal battery cell for any reason. (5) Keep the battery away from fire or a hot oven. Do not dispose of the battery into fire or a hot oven. (6) Keep the product with battery away from extremely low air pressure or high temperature surrounding environment. Battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas. (7) Stop using the battery pack if it is damaged, or if you notice any discharge or the buildup of foreign materials on the battery contacts. (8) Do not put the battery in trash that is disposed of in landfills. When disposing of the battery pack, comply with local ordinances or regulations.

14. CAUTION: Risk of explosion if battery is replaced by any battery other than Lightspeed Part # L3.7V

System Components and Unpacking

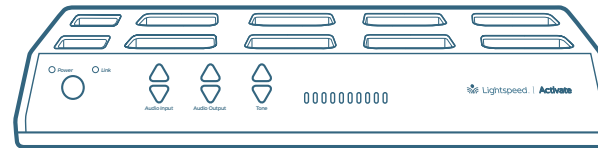The standard configuration of Activate will contain:
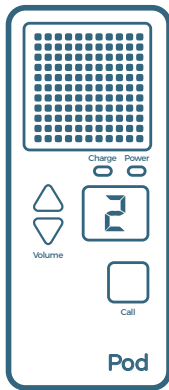
Small Group Pods

Flexmike

Teacher Microphone

Activate Station

and Power Supply

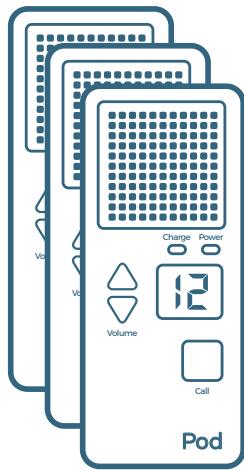**Activate App**

Install from:

Compatible with iOS 9 or higher

Compatible with Nougat 7.0 or higher

Optional Components

Additional Pods

Up to 12 Pods per class

**Second Flexmike**

For team teaching

Sharemike

Handheld microphone

Pod Controls and Connections

1. **CHARGING INDICATOR**: This light is red when charging, and green to indicate charging complete.

2. **POWER/LOW BATTERY INDICATOR**: This light blinks blue when powered on, turns solid blue when ready for operation and turns red when the battery is low.

3. **POD NUMBER**: The number will light as a clear visual indicator for the teacher to determine which Pod represents which group number.During operation, this light will blink when the call button is pressed. The pod number will continue to blink until the teacher selects that pod.

4. **CALL BUTTON**: Students can press this button to notify the teacher they need assistance.

5. **MICROPHONES**: The internal microphones that pick up the student's voice are located at each end of the Pod.

6. **SPEAKER**: The internal speaker distributes the teacher's voice.

7. **VOLUME**: Up/down buttons adjust the volume of the Pod speaker. The volume level (-5 to 5) will be shown in the LED window.

8. **HEADPHONE OUT**: Connect headphones for private listening. The Pod speaker is muted when headphones are connected.

9. **USB CHARGING/POWER INPUT**: For systems with more than 8 Pods, plug the charging cable from the Activate station or other USB power source into this jack.

10. **POWER**: Press to power on. Press and hold for 3 seconds to power off.
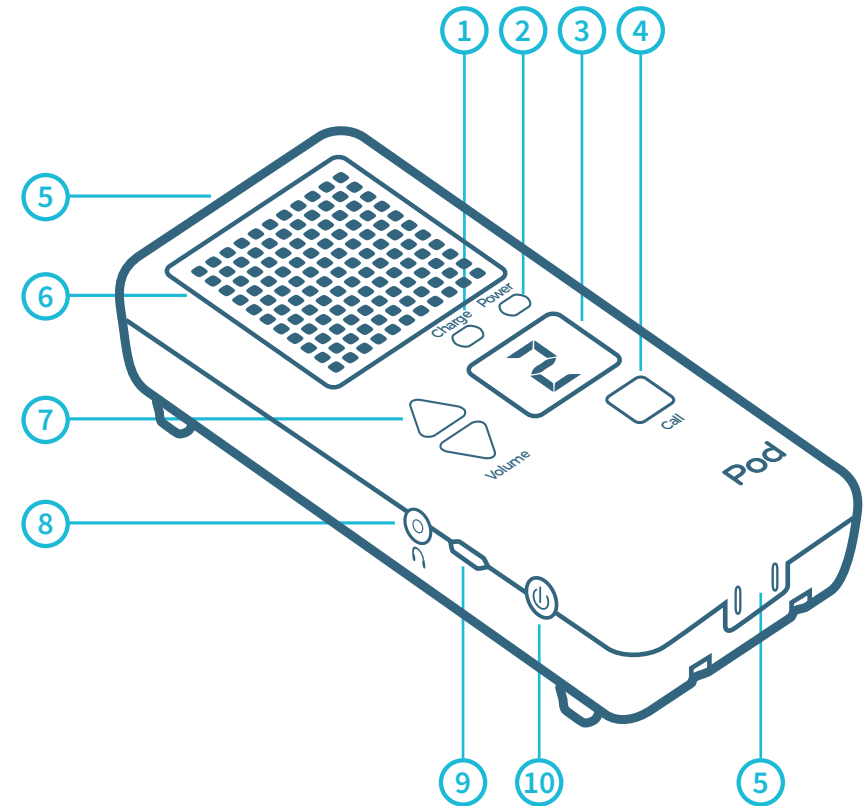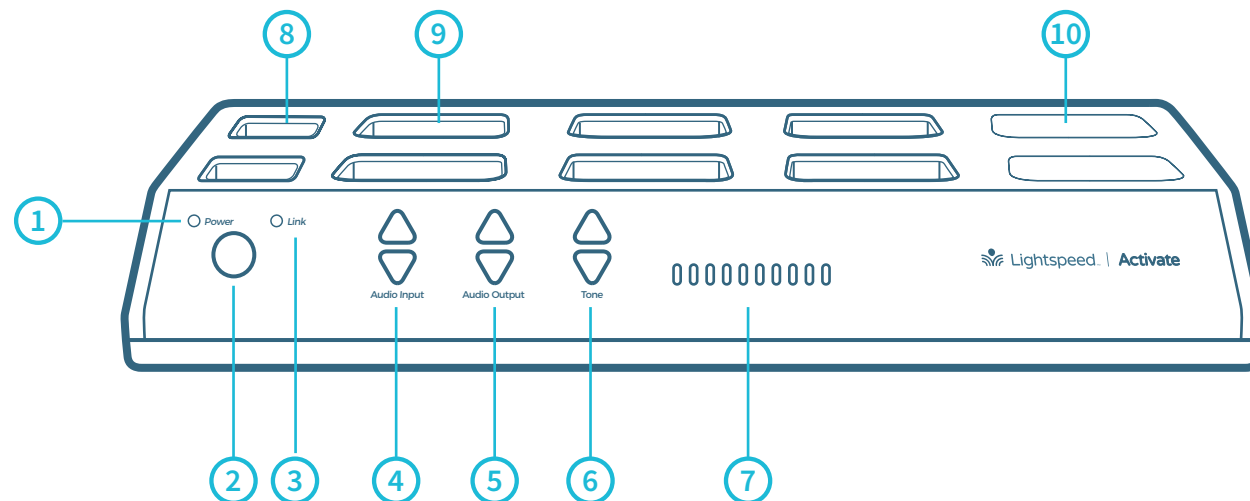
Activate Station: Controls and Connections

FRONT PANEL

1. **POWER INDICATOR**: The light will turn white when powered on, off when placed in sleep mode.

2. **POWER/SLEEP**: Press to place the Activate Station and classroom audio system into sleep mode. The Activate Station will continue to charge devices when in sleep mode.

3. **STATUS INDICATOR**: This light is solid white to indicate Activate is connected to the audio system and ready for operation.

4. **AUDIO INPUT VOLUME**: Adjusts the level of multimedia devices plugged into the 3.5mm audio input ports.

5. **AUDIO OUTPUT VOLUME**: Adjusts the level of ALD or recording devices plugged into the 3.5mm audio output ports.

6. **TONE**: Adjusts the bass or treble that is heard through the classroom speaker.

7. **VOLUME LEVEL INDICATORS**: Shows the volume level of the source that is being adjusted (Input, Output, Tone). The source level will be updated once a new volume button is pressed.

8. **MICROPHONE CHARGING SLOTS (2)**: Place your Flexmike or Sharemike in these slots for nightly charging.

9. **POD CHARGING SLOTS (8)**: Place your Pods in these slots for nightly charging.

10. **CHARGING COVERS**: Covers are included to protect unused Pod charging slots from dust and debris.

Activate Station: Controls and Connections

BACK PANEL

1. **AUDIO INPUTS (1-4)**: Connect a multimedia audio source to wirelessly send the audio to be played through the whole classroom speaker(s).

2. **AUDIO OUTPUT (ALD)**: Connect Assistive Listening Device to send the whole classroom audio to an individual student's device.

3. **AUDIO OUTPUT (REC)**: Connect recording device to capture whole classroom audio from the teachers' microphone. When Record is toggled on in the app, the output provides a fixed level that does not change when the Audio Out volume is adjusted.

4. **BLUETOOTH PAIRING (1-2)**: Press this button to pair Activate to a mobile device. Download the Lightspeed Activate app from the iOS App Store or Google Play for complete instructions.

5. **ACCESS PAIR**: This button is used to pair the Activate Station with the classroom audio system. If purchased together this is done by default at the factory.

6. **USB CHARGE OUTPUTS (PHONE/PODS)**: Use the first two USB ports to charge a mobile phone or additional Pods.

7. **USB CHARGE OUTPUTS (PODS)**: Use these two USB ports to charge additional Pods.

8. **AUX POWER INPUT**: 5V USB power from a laptop or USB power pack can be used in a portable application to power the Activate Station wireless audio functions (in place of the standard 24V power supply). Note : Charging is disabled when auxiliary power is used.

9. **POWER**: Plug the primary 24V/1.75A power supply into this jack.
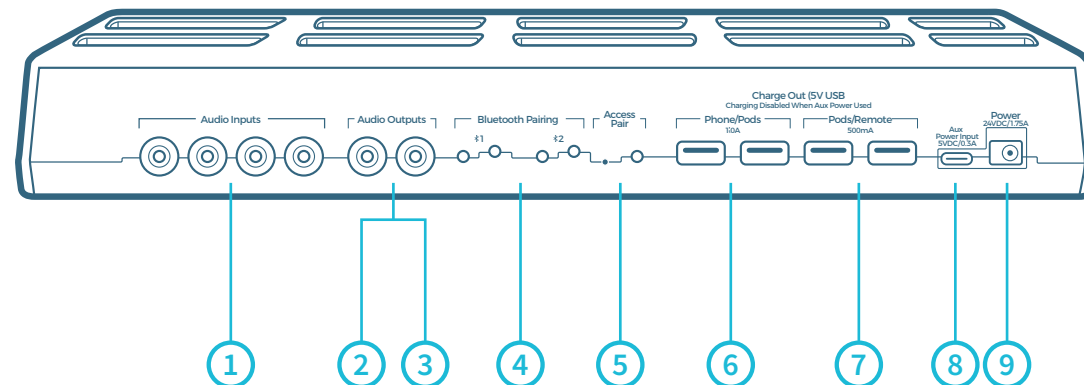
Determine Set-Up Location

ACTIVATE STATION

Activate Station organizes and charges the Pods and microphones, and also wirelessly connects audio to the classroom audio system and your mobile device.

Set it up in a convenient place near a power source that is easily accessible for teachers and students.

Key considerations:

- Close proximity to AC power outlet
- Near multimedia audio sources if desired
- Do not place in a fully enclosed metal cabinet

PODS

The Pods are designed to be highly portable and move around the room with the student group. Pods can be taken out of the room up to about 100 feet before communication is lost.

- Place on a stable, flat surface
- Within 3-6 feet of all students in that group
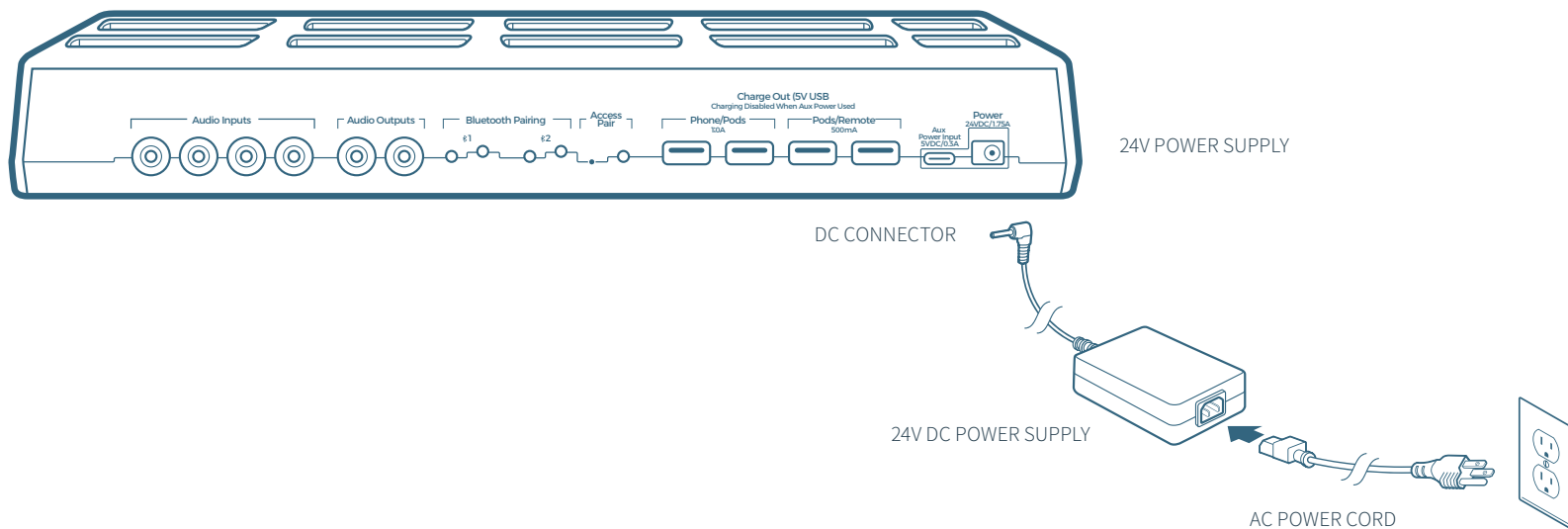- Top surface of the speaker should be clear with nothing set on top for best sound quality and microphone response

TIP: Assign students to manage the charging of the Pods. Have one assigned student remove it from the charger to start the day and place it back on the charger at the end of the day.

Plug in the Activate Station

1. Locate the 24V DC power supply.

2. Connect the AC power cord into the DC power supply.

3. Insert the DC connector into the DC power jack on the back.

4. Plug the AC power cord into an electrical outlet.

5. The white power light on the front of Activate Station will glow.

6. The blue status light will begin blinking as it searches for its paired classroom audio base station (Redcat, Topcat, 975 or Access Link).

NOTE: If Activate is being added to an existing Lightspeed audio system, please refer to the Pairing Procedure at www.lightspeed-tek.com/accessregistration.

Audio Inputs — Audio Outputs — Bluetooth Pairing — Access Pair

Charge Out (5V USB
Charging Disabled When Aux Power Used

Phone/Pods
1.0A — Pods/Remote
500mA — Aux Power Input
5VDC/0.3A — Power
24VDC/1.75A

24V POWER SUPPLY

DC CONNECTOR

24V DC POWER SUPPLY

AC POWER CORD

Charging and Pairing Microphones and Pods

CHARGING

All system components should be fully charged (at least 5 hours) for optimum performance. In most cases, there should be enough battery charge for initial setup and testing.

- Insert all Pods into the Activate Station. If your system has more than 8 Pods, the additional Pods can be plugged into the USB charging ports on the back with the included cables.

- Each Pod will power on and the charge light will turn red to indicate normal charging. When fully charged, they will turn green.

- Insert the microphone(s) into the left slots of the Activate Station.

- The microphone(s) will power on and the charging light will turn red to indicate normal charging. When fully charged, it will turn green.

PAIRING

If your Activate System was purchased together with a Lightspeed audio system (Redcat, Topcat, 975 or Access Link), all components were paired together at the factory.

PAIRING ADDITIONAL ACTIVATE SYSTEM COMPONENTS

If the Activate Station and Pods were purchased separately from the Lightspeed classroom audio system, the new components will need to be paired with the audio system for operation.

For additional instructions and video tutorials please visit the Activate Support page
www.lightspeed-tek.com/products/activate/?tab=support

Components are paired and ready for operation when:

Microphone has a solid white Mic 1 or Mic 2 light

Power light is solid blue

LED number is red

Status light is solid white
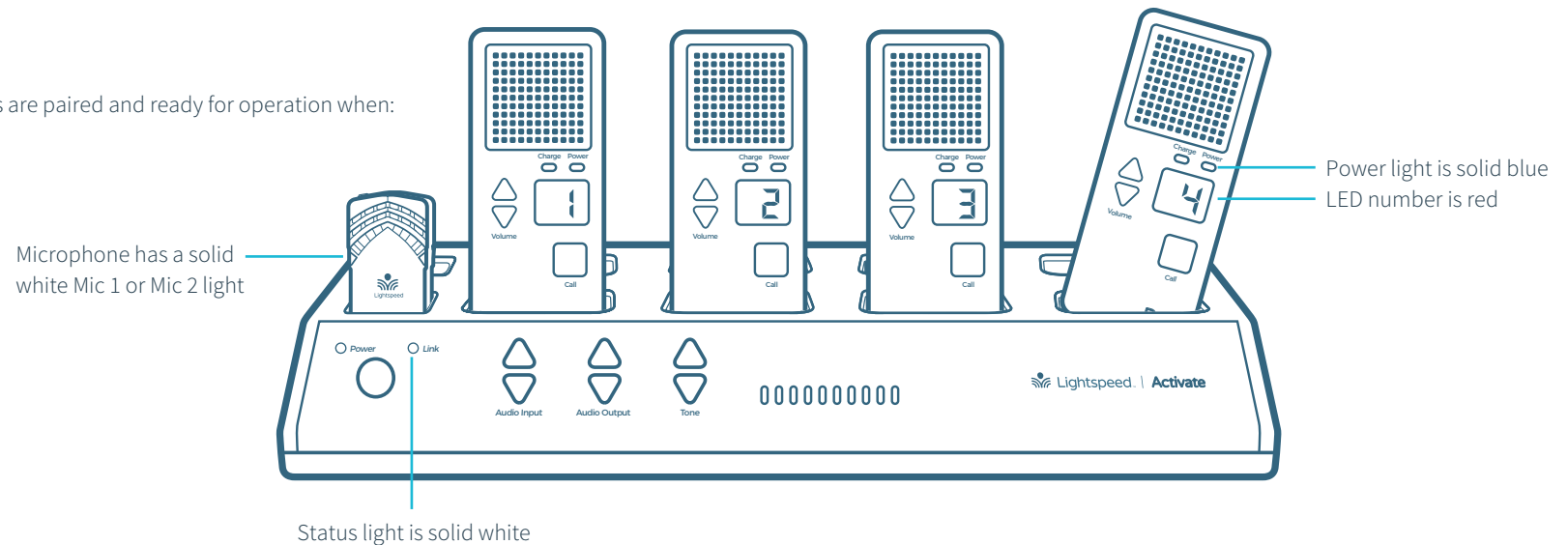
Pair your Mobile Device to the Activate Station

FIRST, DOWNLOAD THE ACTIVATE APP

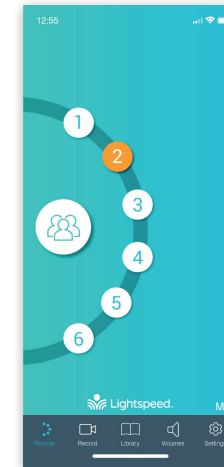Activate Pods can be controlled by the teacher microphone or the Lightspeed Activate App which can be downloaded from the iOS App Store or Google Play Store:

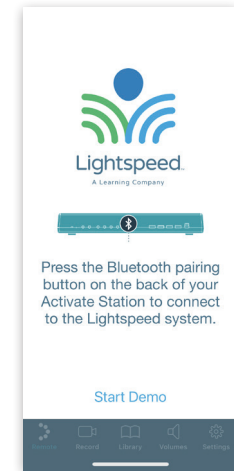**Download on the App Store**

**ANDROID APP ON Google play**

PAIRING WITH THE ACTIVATE APP

- Open the Activate App on your device and make sure Bluetooth is turned on.

- You will see a set of instructions that will take you through the two pairing processes.

- Begin by pressing the Bluetooth 1 pairing button on the back of your Activate Station to connect to the Lightspeed system for remote control functionality. Once paired, any registered Pods, if purchased, will appear on the mobile app.

- You can now pair to Bluetooth audio. The app will take you through a pairing guide and will instruct you to go to your mobile device Settings>Bluetooth. Choose your Activate Station number (ACT_XXXX_BT1) from the list of unpaired devices. Note: Some devices may require you to press the record tab to begin the pairing prompt.

- Next enter the pin #0000 to complete the pairing process. Some devices will enter the code by default.

- Press the pair button within the app when prompted. The device should now show as connected.

- Return to the Activate mobile app. For a tutorial on how to use the various functions, including some additional functions available only through the app go to settings and start "User tutorial".

- If there is a second Flexmike for team teaching, repeat the above process with a second mobile device and press the Bluetooth 2 button on the back of the Activate Station.

ACTIVATE APP

When using the Activate App, refer to the tutorial within the app.

Press the Bluetooth pairing button on the back of your Activate Station to connect to the Lightspeed system.

Start Demo
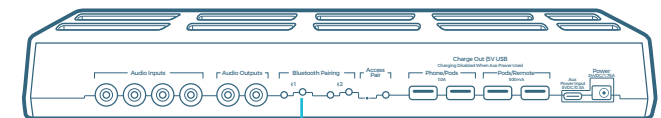
BLUETOOTH 1 PAIRING BUTTON

Set up the Flexmike and Earbud

INITIAL SETUP

- Locate the earbud lanyard

- Hang your Flexmike on the lanyard opposite the magnetic clasp.

- Plug the earbud into the headphone connection on the Flexmike.
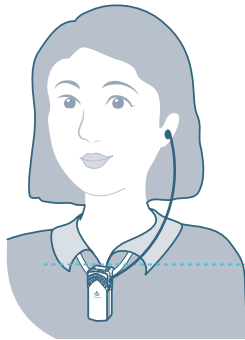
ALIGN TOP WITH
COLLARBONE

WEARING THE FLEXMIKE + EARBUD LANYARD

- Place the lanyard and microphone around your neck, connecting the magnetic clasps behind your neck.

- Insert the earbud into your ear

- If the earbud cable does not seem long enough to comfortably fit your ear, unwind it from the lanyard 2-3 coils.
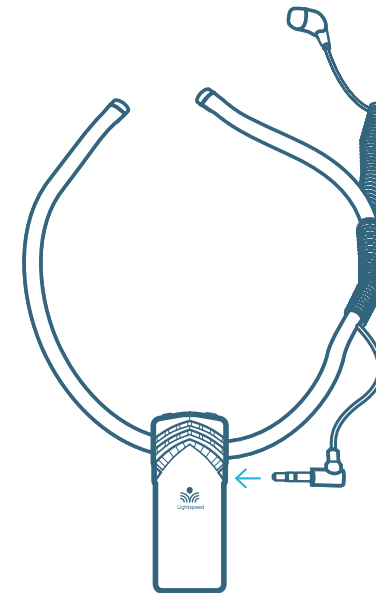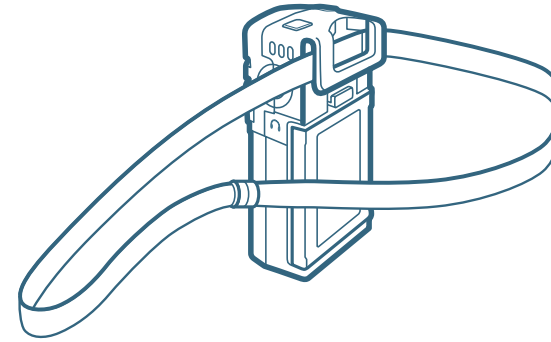
Adjust the Flexmike Volume

1. The Flexmike will automatically power on and mute when it is removed from the charger.

2. The microphone volume on the Flexmike is set at the factory to the midpoint. It is adjusted by the up/ down buttons on the side of the mic.

3. While speaking in a normal voice, fine tune the microphone volume. Proper volume level should be as follows:

   • Your voice should be clearly heard by another person on the other side of the room.

   • You should barely be able to hear your own voice.

   • There should not be any audio "feedback" or squealing outside of 2-3 feet (if there is, turn the volume down slightly).

REMEMBER: This equipment supplements the user's voice so they are able to speak in a conversational tone. Having the volume set too high will result in feedback and listener fatigue.

• Once initial volume level is set, walk around the room and listen for overall audio quality.

• If further fine tuning is required, you may need to adjust the Tone Control on the front of the Activate Station.

• If the Flexmike is out of range, it will automatically shut off after 30 minutes of trying to reconnect. Once you are back in the classroom, or in range, simply press and hold the power button on the Flexmike to power it up and resume normal operation.
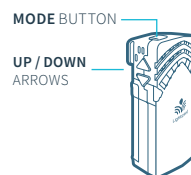
TALK / MUTE LIGHT   ● TALK
                     ○ MUTE

FLEXMIKE VOLUME CONTROL
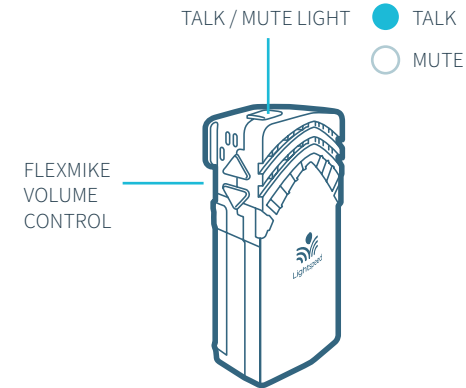
Operating the Activate System

USING THE LIGHTSPEED ACTIVATE APP

1. From your mobile device, open the Activate App.

2. Select the classroom speaker and begin speaking into your microphone.

   - You should hear your voice at a comfortable, but not loud volume level.
   - Tap the mute button to ensure that is working properly.

3. Select Pod #1. Note that it takes approximately 1.5-2 seconds to connect

   - The button will blink and you will hear a tone in your earbud to confirm that Pod is live.
   - Begin speaking and confirm that your voice is coming through that Pod. You should also be able to hear audio in your earbud.
   - If possible, have another person sit next to and speak into the Pod.

4. Try selecting each of the other Pods to make sure they are all properly connected to the system.

5. Enable *Pod to Class* sharing by swiping one of the Pods to the class speaker icon. This allows a student to pick up the Pod and speak into it like a microphone to present to the class.

   - The student's voice will be amplified by the class speaker, allowing all students to clearly understand. Note that the teacher's microphone can also be live or muted during student sharing.

MODE BUTTON

UP / DOWN ARROWS

USING THE FLEXMIKE

	ACTION	RESPONSE	DESCRIPTION
CLASS MODE			
Whole class instruction	Tap the **mode** button	Button lights blue	Teacher can address the entire classroom through the classroom speaker
Adjust microphone volume	**Up/down** arrows	Volume changes in class speaker	Turn the microphone volume up or down
POD MODE			
Listen to small groups	Tap the **mode** button	Button lights white	Teacher can toggle through pods to listen to small groups
Select pods	**Up/down** arrows	Selected pod number sounds in earbud	Jump from pod to pod listening to different groups
Talk to pods / listen to pods	Double Tap **mode** button (toggle between listen/talk)	Voice response in earbud	Talk to individual groups Double tap again to just listen
Pod to class (student sharing)	Press and hold **up** arrow	Voice response in earbud	Individual pods broadcast through the class speaker for student sharing
Student sharing pod selection	**Up/down** arrows	Voice response in earbud	Use the up/down arrows to allow other groups to share out

Setting System Volume Levels

For greater flexibility, Flexmike, Pods and the classroom audio system have independent volume controls. To set the proper volume for your classroom, place the microphone around your neck and do the following:

FLEXMIKE VOLUME (through the classroom speaker and Pods)

To adjust, use the up/down buttons on the Flexmike.

- Select an individual Pod and begin speaking in a normal voice.
- The volume should be at a level that the kids seated around the Pod can clearly hear, but not so loud that other nearby groups could hear.
- Press the class button to turn on the classroom speaker and speak in a normal voice.
- The volume should be at a level that the kids can clearly hear from the other side of the room. You should just barely be able to hear your own voice.

NOTE: At proper volume levels, there should not be any "feedback" or squealing from the speaker outside of 2-3 feet. If there is, turn the Flexmike volume down slightly.

POD SPEAKER VOLUME

- The speaker volume of each individual Pod can be adjusted using the up/down buttons on the Pod.
- The default volume setting is at the center point.
- Press the up/down buttons to adjust the speaker volume level as desired.

POD TO CLASS VOLUME

- Enable "Pod to Class" sharing mode by swiping Pod #1 to the class icon on the app.
- Hold Pod #1 and begin speaking, keeping it 3" to 4" from your mouth.
- The volume should be at a level to just hear your own voice, but loud enough to enable kids on the other side of the room to clearly hear you (it is helpful to have another person in the room to verify).
- Press the volume tab and adjust the Pod to Class volume on the app to optimize the level.

  NOTE: Check the Pod sharing volume level at the Pod nearest the classroom speaker to verify there is no "feedback" or squealing. If there is, turn down the volume slightly.

VOLUME
CONTROL

VOLUME
CONTROL

DRAG POD
TO WHOLE
CLASS ICON
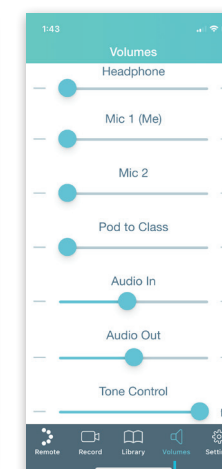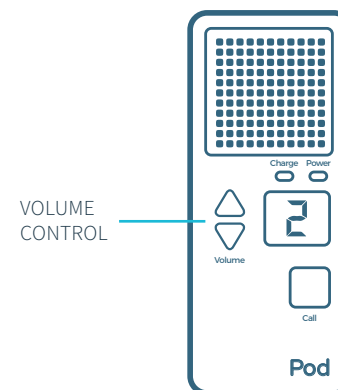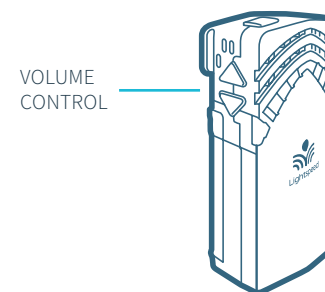
VOLUME
TAB

Output to Assistive Listening Device (ALD)

- Turn the AUDIO OUTPUT volume control on the Activate Station front panel all the way down.

- Connect a patch cable from the ALD's microphone jack or AUX input to one of the 3.5mm AUDIO OUTPUTS on the back of the Activate Station.

- With both the Lightspeed classroom audio system and ALD turned on, speak into the Flexmike and slowly adjust the AUDIO OUTPUT volume control on the front Activate until the appropriate audio level is attained in the ALD receiver's headphones.

- It may be necessary to adjust the volume on the ALD to achieve appropriate volume level.

3.5MM AUDIO JACK
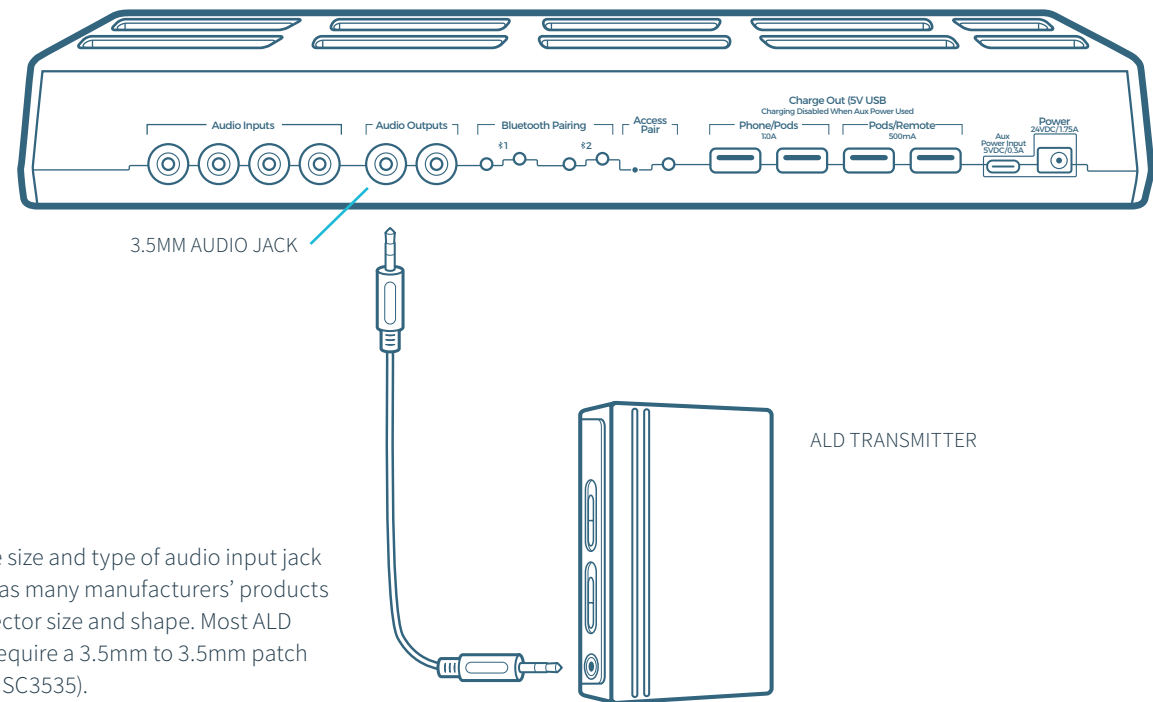
ALD TRANSMITTER

Determine the size and type of audio input jack on the device as many manufacturers' products differ in connector size and shape. Most ALD transmitters require a 3.5mm to 3.5mm patch cable (part# MSC3535).

Additional Capabilities with Activate App

ADDITIONAL VOLUME ADJUSTMENTS

On the Volume tab, the teacher can adjust headphone volume, Microphone #1 and #2 volume, Pod to Class sharing, volume level on the amplifier audio input, and Activate Audio In and Out (fig. 1).

TEACHER TRACKER

If your system is equipped with a second microphone, this feature allows a teacher to see which group the other instructor is communicating with. When this feature is toggled on, it places a ring around the group the other teacher is connected to.

• In the Settings tab, toggle Teacher Tracker on to activate this mode (fig. 2).

WHISPER COACH MODE

For the purpose of live observation and coaching, Activate allows a coach or administrator to provide immediate feedback directly to the teacher.

With Whisper Mode, a second microphone (for the coach) follows the primary teacher around, listening to the same groups and the interaction the teacher has with those groups.

When the coach observes an improvement opportunity, he/she can quickly unmute their microphone and speak directly into the teacher's earpiece, delivering quick feedback in the moment.

• In the settings tab, toggle Whisper Mode on (fig. 2).

• Return to the remote page, and a "Whisper" icon will appear (fig. 3).

• To enter Whisper Mode, press the Whisper icon.

• The instructor who presses the Whisper icon will be designated as "Coach" and will follow the teacher. The Coach's pod selection controls will be disabled.

• To begin a whisper conversation, the coach simply unmutes his/her microphone to speak directly into the teacher's earbud.

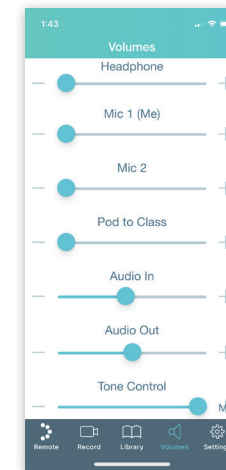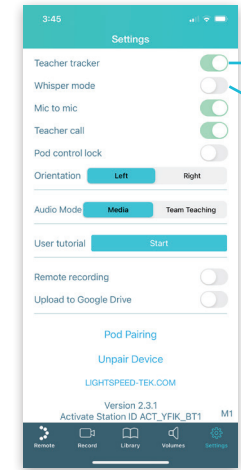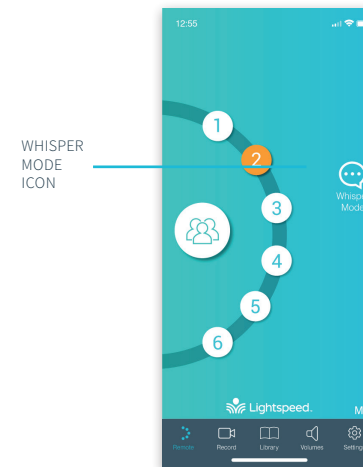 **Note:** This will also mute the teacher's microphone.

FIG 1

FIG 2

TEACHER TRACKER

WHISPER MODE

WHISPER MODE ICON

FIG 3

Additional Capabilities with Activate App (cont.)

MIC TO MIC

If your system is equipped with a second Flexmike, the Activate app allows you to activate Mic to Mic mode where two teachers can have a direct 2-way conversation with each other.

Toggle the Mic to Mic function ON in the Settings tab and an icon will appear on the remote screen. Tap the Mic to Mic icon to call the other teacher. The second teacher will then need to "answer" the call by tapping "Mic to Mic" on their screen (fig. 1, 2).

DISABLE TEACHER CALL

Turning off this feature disables the blue call button on the top of the Pods. This feature is turned on by default, allowing students to notify the teacher when they need assistance (fig. 2).

POD CONTROL LOCK

Turning this feature on will lock the Pod power in the on position as long as the Pods remain linked to the system. This is designed to prevent students from inadvertently powering the Pods off. The Pods are designed to remain on during charging, so there is generally no need to power them off. Turning this feature on will also lock Pod volume (fig. 2).

ORIENTATION

Allows users to flip the orientation of the Remote screen to adapt to right and left handed users (fig. 1, 3).

MIC TO MIC
TEACHER CALL
POD LOCK
ORIENTATION

FIG 1

MUTE ICON
TEACHER TRACKER
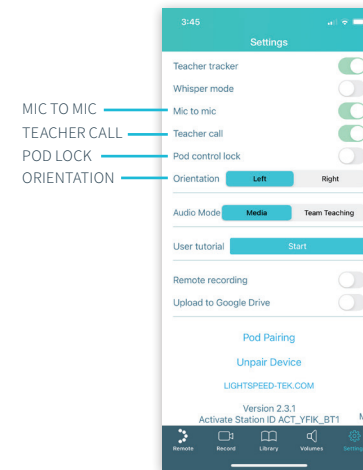
FIG 2

FIG 3

Additional Capabilities with Activate App (cont.)

AUDIO MODE

Media mode is the default setting. When Media mode is active, only Mic 1 (M1) will be able to connect to pods.   Media played through the Activate system will not be muted when Mic 2 (M2) is active. Mic 2 will only connect to the class speaker. When Team Teaching mode is active, both Mic 1 and Mic 2 will be able to connect to pods. Media played through the Activate system will be muted when both Mic 1 and Mic 2 are connected to two separate pods.

UNPAIR DEVICE

Press this button to unpair your mobile device from the Activate system. This is useful if you wish to take your device to pair up with a system next door.

AUDIO MODE

UNPAIR DEVICE
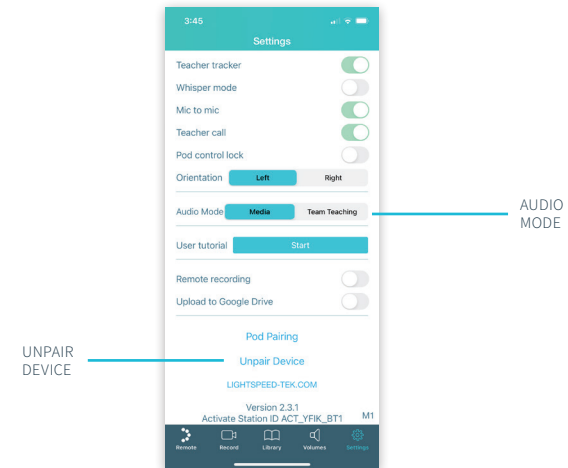
Record Audio and Capture Video

Video + Audio Recording

The Activate mobile app allows teachers to utilize their device video camera synced together with the Activate system audio to capture key moments in the classroom. Through the Bluetooth audio link, the App will seamlessly sync up the selected audio source (teacher microphone or Pods) with the video you have recorded.

TAP THE RECORD TAB

• Verify the Bluetooth audio connection is present as indicated by a "headphone" icon in the lower left hand corner of the screen.

• Select Video capture at the top of the screen.

SELECT DESIRED AUDIO SOURCE

• Note the selected source indicated in the upper left hand corner of the screen.

• If you wish to change the source, swipe right on the screen to reveal the control arc.

• To record teacher audio only, select the class button. Make sure your microphone is unmuted.

• To record student group audio, select the desired Pod.

  NOTE: For optimum student audio quality, the teacher microphone should be muted.

BEGIN RECORDING

• Select front or back camera.

• Tap the red record button to begin the video recording.

• To pause the video recording, tap the pause button.

• To end the recording, press the stop button.

• You will see the last recorded video appear as a thumbnail for quick review.

• To capture a still photo during the recording, tap the white shutter button.

CAPTURE STILL PHOTO

• Select front or back camera.

• Tap white button at the bottom of the screen.

VIDEO CAPTURE

SELECTED POD SOURCE

SELECT FRONT OR BACK CAMERA

CONTROL ARC

SELECT WHOLE CLASS

START RECORDING VIDEO OR AUDIO

STILL PHOTO

SELECT FRONT OR BACK CAMERA

CAPTURE STILL PHOTO

Record Audio and Capture Video (cont.)

Audio Only Recording

In addition to video recording, teachers can record just the audio of a lesson or student interaction.

TAP THE RECORD TAB

• Verify the Bluetooth audio connection is present as indicated by a "headphone" icon in the lower left hand corner.

• Select Audio at the top of the screen.

SELECT DESIRED AUDIO SOURCE

• Note the selected Pod source indicated in the upper left hand corner of the screen.

• If you wish to change the source, swipe right to reveal the control arc.

• To record teacher audio only, select the class button. Make sure your microphone is unmuted.

• For student audio, select the desired Pod.

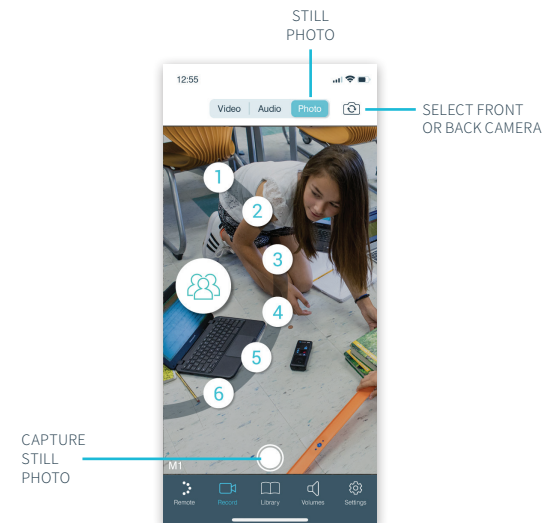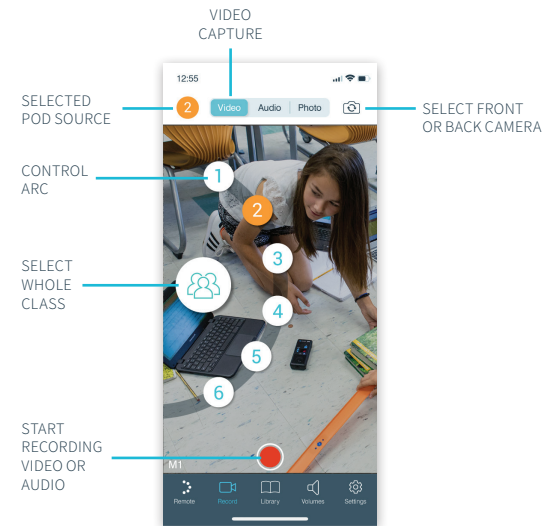   **NOTE:** For optimum student audio quality, mute the teacher microphone.

BEGIN RECORDING

• Tap the red record button to begin the audio recording.

• To capture a still photo during the recording, tap the white shutter button.

• To end the recording, press the stop button.

• You will see the last recorded audio file appear as a thumbnail for quick review.

AUDIO RECORDING

SELECTED POD SOURCE

CONTROL ARC

SELECT WHOLE CLASS

START RECORDING VIDEO OR AUDIO
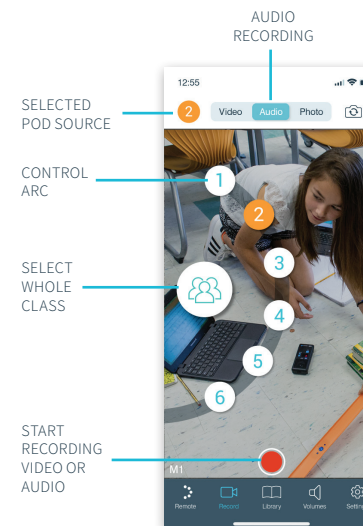
Record Audio and Capture Video (cont.)

Remote Recording

Remote recording allows the teacher to use his/her primary mobile device to start a recording on a secondary mobile device (on a tripod in the front of the classroom for example). During remote recording, the teacher can select pods or class as normal while the secondary device is capturing video synced with that selected audio.

PAIR TWO MOBILE DEVICES TO THE ACTIVATE STATION

• One as BT1 and the other as BT2.

ENABLE REMOTE RECORDING ON THE TEACHER'S PRIMARY DEVICE

• To enable remote recording, toggle it to the ON position in the settings tab of the Activate App.

• This device will become the "controller".

SETUP THE TWO MOBILE DEVICES TO RECORD

• To set up the mobile device as the controller, tap the white " Remote Record" icon on the video recording preview. This will disable the video camera on the device and show the arc along with the record button which you can press when ready.

• With the controller device set up to begin your recording, set the second mobile device to capture the video for your recording.

BEGIN RECORDING

• Tap the red record button on the controller device to begin the video recording.

• To pause the video recording, tap the pause button.

• To end the recording, press the stop button.

• You will see the last recorded video appear as a thumbnail for quick review on the mobile device acting as your camera.

REMOTE RECORDING

SETTINGS TAB

REMOTE RECORD ICON

START RECORDING VIDEO OR AUDIO
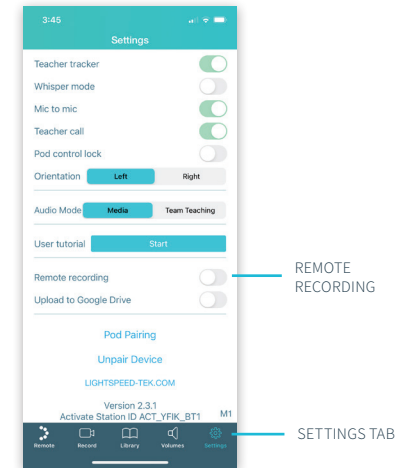
Record Audio and Capture Video (cont.)

Recording Library and Playback

All of your captured video, audio and photo files are organized and stored in the library tab for easy review.

SELECT THE LIBRARY TAB

• Select from video, audio or photo library at the top of the screen
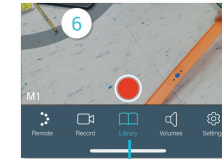
TAP THE DESIRED FILE TO BEGIN PLAYBACK

• Press the play button at the bottom of the screen and adjust volume on your mobile device as desired.

• Playback audio will default to the teacher earbud.

DELETING FILES EDIT LIBRARY AND SHARING

• Tap the select button and select the desired files to delete.

• Press the trash icon to delete.

TO SEND FILES TO ANOTHER DESTINATION

• Tap the select button and select the desired files to send.

• Tap the upload icon on the bottom left of the screen.

• Select from the menu on your mobile device where you want to send the file: via SMS or email, share on social media, send to cloud storage server, etc.

LIBRARY TAB
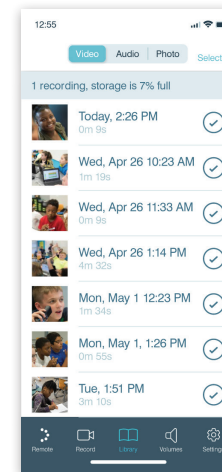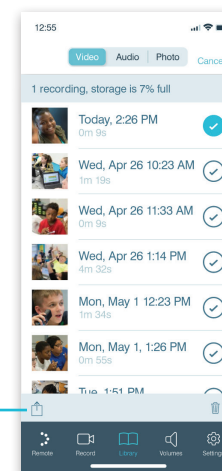
RECORDED FILES

SELECTED RECORDING

UPLOAD ICON

TRASH ICON

Record Audio and Capture Video (cont.)

Auto Upload to Google Drive

AUTOMATIC FILE UPLOAD TO GOOGLE DRIVE

- It is possible to automatically upload files to Google Drive by choosing "Upload to Google Drive" in the App settings.

- When connected to Google Drive, files will automatically upload.

- Files marked with a check-mark indicate successful upload to Google Drive and are available for viewing, sharing, and collaborating.

INTEGRATE WITH GOOGLE DRIVE ACCOUNT

- In settings, toggle Upload to Google Drive on.

- You will be directed to link to your google account.

- All files will be automatically uploaded to a new folder into your Google Drive account.

- By default, the last recorded file will be locally stored on your device. All others will be over-written to preserve storage space.

- In your settings, choose whether you would like to automatically keep the last one recording or the last 10 recordings.

UPLOAD TO GOOGLE

UPLOAD SETTINGS

INDICATES SUCCESSFUL UPLOAD
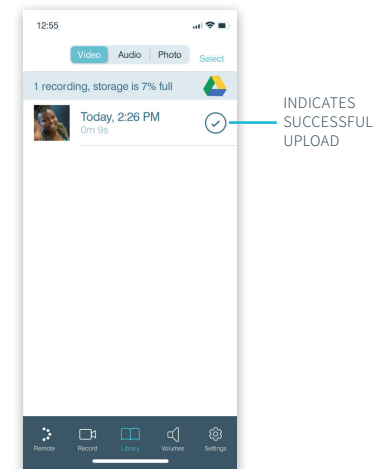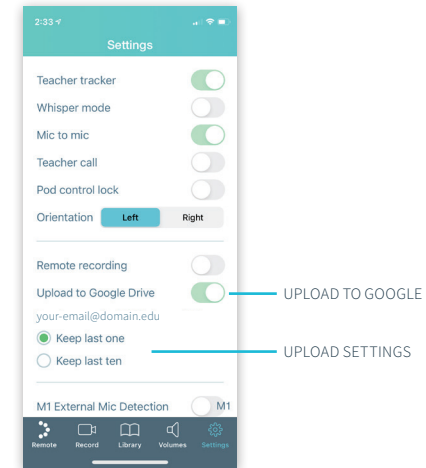
Sharemike Controls and Connections

1. **POWER BUTTON**

2. **POWER STATUS LIGHT**
   Red light: During operation, turns red to indicate low battery
   White light: Normal operation

   When charging in Cradle Charger:
   Red light: Charging
   Green light: Charging complete

3. **MIC 1 STATUS:** Lighted to indicate microphone is registered as Mic 1
   White: solid = Normal operation
   White: flashing = Linking in process

4. **MIC 2 STATUS:** Lighted to indicate microphone is registered as Mic 2
   White: solid = Normal operation
   White: flashing = Linking in process

5. **MUTE/TALK STATUS LIGHT**
   Blue: solid = Talk
   White: solid = Mute

6. **MICROPHONE VOLUME UP/DOWN**

7. **USB INPUT:** Connect audio source to send to 975. USB input can also be used for charging.

8. **IR TRANSMITTER:** For pairing to base unit

9. **AUDIO INPUT:** Plug a laptop or other audio device into this jack to wirelessly transmit the audio signal to be played through the system.

10. **VOLUME LOCK:** Disables volume controls.

normal operation
charging in progress
charging complete

normal operation
linking in progress (flashing)

TALK
mute

BATTERY
REMOVAL
LATCH

UNDER
BATTERY
PACK
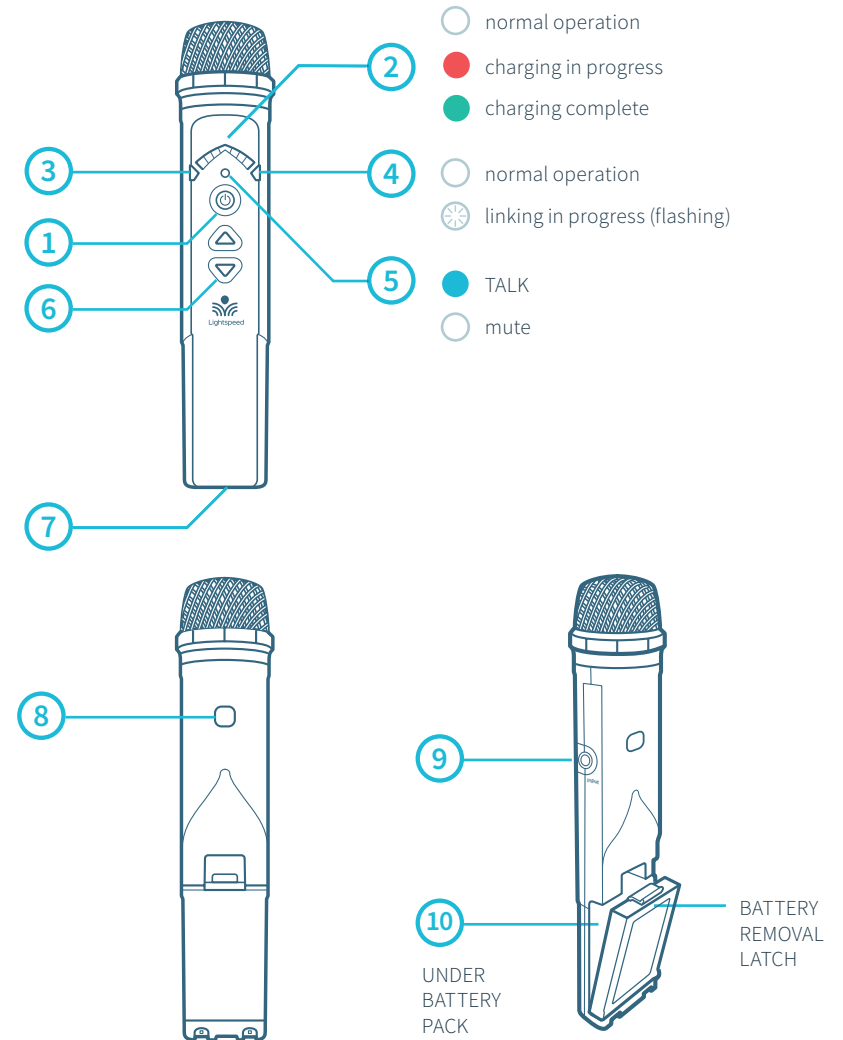
Sharemike: Charging

1. Make sure the charger is plugged into a wall outlet.

2. The power status light on the microphone will glow red to indicate charging.

3. Leave the Sharemike in the charger overnight to obtain a full charge. It takes about 5-6 hours to fully charge the battery. The light will turn green when charging is complete.
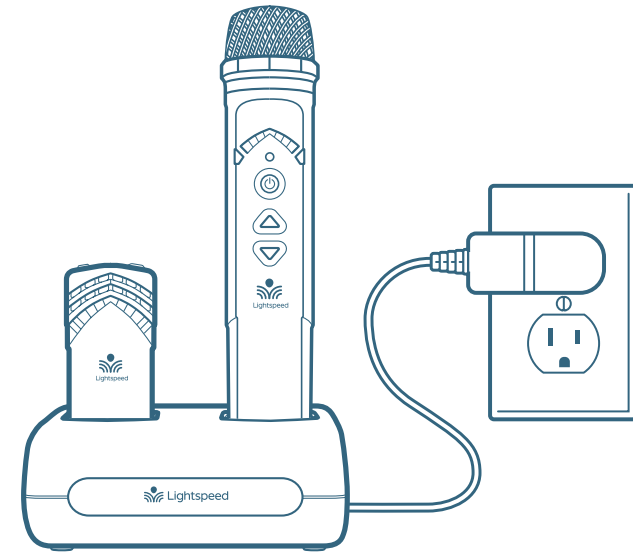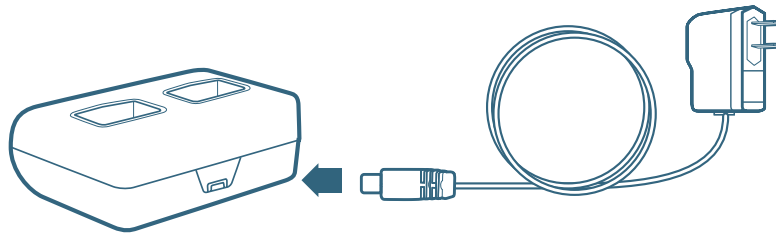
PLEASE NOTE: The 975 and microphone(s) are paired together at the factory and all components should be kept together as a system. Moving them from one system, or room, to another will result in the need to re-pair.

Sharemike: Initial Set-Up

1. Ensure the 975 is on. The white power light will glow.

2. Turn on the Sharemike by pressing and holding the power button until the LED lights.

3. Grip the barrel in the center section.

4. While speaking in a normal voice, increase the volume with the Sharemike until your voice is barely audible.

POWER BUTTON

VOLUME CONTROL

POWER LIGHT
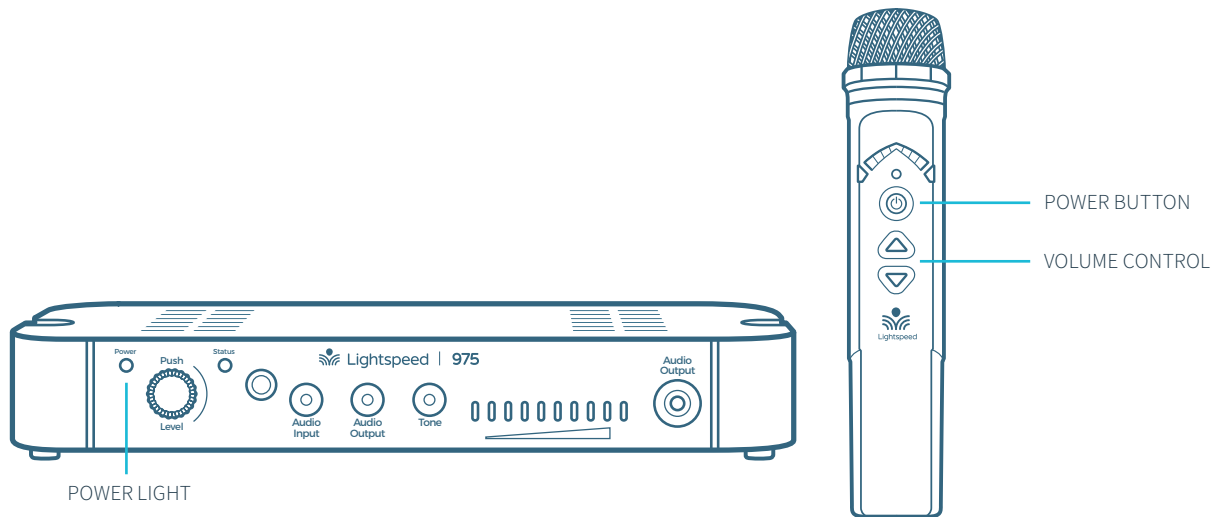
PLEASE NOTE: This equipment is designed to supplement and distribute the user's voice so they are able to speak in a conversational tone. Having the volume set too high will result in feedback and listener fatigue.

MAINTENANCE & TROUBLESHOOTING

Pairing Replacement or Additional Components

When purchased as a complete system, components (whole-class audio system, Flexmike, Activate and Pods) will be paired and ready for use, so there is no need to manually pair anything.

In the event a component needs to be replaced or an additional component is added down the road, it will need to be paired. Please refer to the *Pairing Guide* provided with the new components or visit lightspeed-tek.com.

Battery Replacement

The Pods and microphones contain rechargeable battery packs that require daily charging. The battery packs are covered under warranty for 1-year but have a useful life of about 2+ years before they should be replaced. The battery packs must be purchased directly from Lightspeed and can easily be installed by the user (part # 77.NH2.5-A).

Replacement of battery pack in Pod

- Slide the battery door open.

- Pull the battery pack out and disconnect the cable.

- Connect the cable to the new battery pack and insert the battery into the compartment.

- Slide the cover back on.

- Place the Pod in the Activate station to fully charge the new battery pack. The charging light will turn red while charging, and green when fully charged (up to 10 hours).

RECHARGEABLE
BATTERY PACK
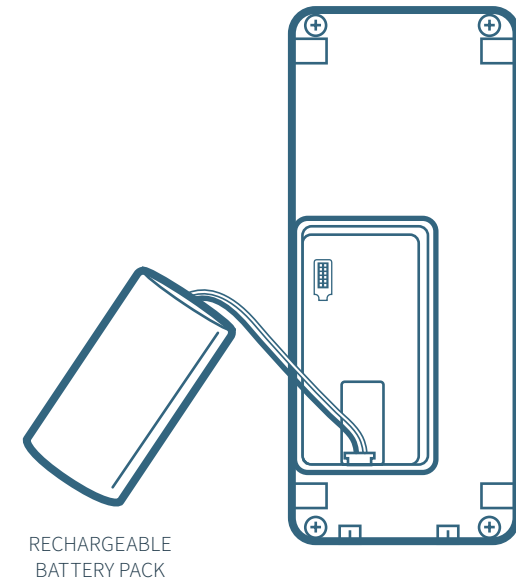
Troubleshooting

PROBLEM: Feedback or squealing from Pod

SOLUTION:

- Make sure the teacher's Flexmike is 2 feet or more away from the Pod. Operation at very close distance can cause feedback.
- Try turning the volume down on the Pod.
- Turn the volume on the Flexmike down 1-2 clicks.

PROBLEM: Feedback or squealing from classroom speaker

SOLUTION:

- Make sure the teacher's Flexmike is 2-3 feet or more away from the speaker. Operation at very close distance can cause feedback.
- Make sure the nearest Pod operating in student sharing mode is at least 6 feet away from the classroom speaker. Operation at very close distance can cause feedback.
- Mute the teacher's Flexmike. If the feedback or squealing persists, the feedback is being caused by a Pod that is in student sharing mode.
  - If the feedback or squealing goes away, the feedback is being caused by that Flexmike, likely due to the volume level being too high. Press the volume down button on the Flexmike 1-2 clicks.
  - If the feedback or squealing persists, the feedback is being caused by a Pod that is in student sharing mode. Turn the "Pod to Class" volume in the app down slightly.

PROBLEM: Cannot hear students in monitor mode

SOLUTION:

- Ensure the desired Pod is selected as indicated by an orange light on the app, or a green or red light on the Pod # button on the remote.
- Make sure the earbud volume is turn up loud enough to hear by increasing the Headphone volume in the Activate app. If a remote is being used, press the Vol UP button on the left.
- Make sure the earbud is fully plugged into the headphone jack on the Flexmike.
- Select another Pod to see if you are able to hear audio from that Pod. If you hear audio, the issue is with one specific Pod.
- Turn the power of the problematic Pod off, wait several seconds, then on again. Let the Pod link back up again as indicated by a solid blue light, then try selecting that Pod again.

PROBLEM: Pod to Class volume is too loud or too quiet

SOLUTION:

- If the volume is too quiet, the student should move the Pod closer to their mouth.
- If necessary, adjust the Pod to Class volume in the volume settings within the app.

PROBLEM: Activate app shows message *"Activate Station is out of range or has no power"*:

SOLUTION:

- This indicates the Bluetooth signal between your device and the Activate Station are having trouble communicating, usually due to range between the mobile device and the Activate Station.
- Make sure your mobile device is within 50-100 feet of the Activate Station. Walk up to the Activate and wait several seconds for the app to reconnect.
- If it does not automatically reconnect, try force quitting the app: for IOS, double tap the Home button on your iOS device, then swipe up the Activate app to close it. For Android, launch the Recent Applications menu, scroll to find the Activate app, then swipe the app to the right to quit. Re-open the app and it should connect automatically.

PROBLEM: Activate app shows "No Response from the Classroom Audio System"

SOLUTION:

- This indicates the app is not communicating with the Access amplifier, usually due to loss of communication between the Activate and the amplifier.
- Make sure the Access amplifier is plugged into power and is powered on. If using a battery operated Redcat Access, verify that the battery is charged.
- If it does not automatically reconnect when the amplifier is powered on, try force quitting the app: for IOS, double tap the Home button on your iOS device, then swipe up the Activate app to close it. For Android, launch the Recent Applications menu, scroll to find the Activate app, then swipe the app to the right to quit. Re-open the app and it should connect automatically.

PROBLEM: Low battery condition.

SOLUTION: Check the batteries and ensure proper charging.

- Confirm batteries are properly charged each night. Full charging can take up to 10 hours.
- When placing a component in a charger, ensure the red charging light turns on. The green charging light will turn on when a full charge is reached.
- Regardless of battery life, the red light will turn on for 20-30 minutes to check status. When battery is full, the light will turn green at some time after that.
- Fully charged batteries will operate properly throughout a full school day for a period of at least 1-2 years. If the batteries are older, they may need to be replaced.

Troubleshooting

PROBLEM: No audio from a Pod when selected.

SOLUTION: follow these steps to isolate and eliminate the problem.

- When the Pod # button is selected, ensure it turns orange. If it does not turn orange, this indicates the Pod or other component is either not on or not properly registered.

- Ensure Pod is on and ready for use as indicated by a solid blue power light.

  - Power the unit on by pressing the power button on the side of the Pod.

  - Try turning the Pod off, then on again and wait up to 30 seconds for it to properly link.

- Ensure the Pod volume is set to a nominal level. If it is turned all the way down, there will be no audio.

- Ensure the Flexmike is on and ready for use as indicated by a steady blue status light (#1 or #2).

  - If the microphone status light is blinking, that indicates the Flexmike is not linked up to the Access amplifier. Ensure the amplifier is plugged in to power.

  - Ensure there is a corresponding green 1 or 2 ready light on the Access amplifier

  - If the microphone status light is red, that indicates the Flexmike is muted. Press the mute button in the app or Flexmike to unmute. If using a remote control, press the mute button on the remote.

- Ensure the proper teacher microphone is being used.

  - If there are 2 microphones with the Activate system, each Flexmike must be paired together with each teacher's specific mobile device.

  - Check microphone status indicator light (1 or 2) is on. Ensure you are using the correct Teacher 1 or Teacher 2 Flexmike.

- If using a remote control, ensure teacher remote is working properly.

  - Press the center "Whole Class" button. It should be lighted green.

  - If it doesn't light, make sure the Access amplifier is plugged into power and the blue power light is on.

  - Ensure the batteries are fully charged. If the red battery low light is on, it can cause intermittent operation.

PROBLEM: Activate app does not light or activate a Pod(s).

SOLUTION:

- Ensure your mobile device is turned on and paired to Bluetooth

  - If not yet paired, see the Mobile Device Pairing Guide to pair your device.

- Check to see that the Flexmike is powered on and linked, as indicated by a solid blue light. If that light does not go solid blue, try powering the Flexmike off, then on again.

- Select a different Pod to see if your mobile device will activate another Pod.

- Make sure the Pod(s) battery pack is charged and the Pod is turned on.

- Ensure that the Activate Station is plugged in to power and turned on.

- If there is a second mobile device check to see if that operates correctly.

- **PROBLEM**: Remote control does not light or activate a Pod(s).

- **SOLUTION**:

- Ensure the batteries have a charge. They should be charged nightly. If the red low battery light is on, it can cause intermittent operation.

- Try pressing the class button. It should be lighted green on the remote.

  - If this button lights, the remote has a battery charge and is properly linked up. The problem is likely with the Pod or Pods that do not activate, refer to the "No audio from Pod" troubleshooting section.

  - If this button doesn't light, make sure the Access amplifier is plugged into power.

  - Check to see that the Flexmike is powered on and linked, as indicated by a solid blue light. If that light does not go solid blue, try powering the Flexmike and Access amplifier off, then on again.

  - Check to see that there is a corresponding green 1 or 2 ready light on the Access amplifier.

  - If the microphone still does not link up (turn solid blue), it may need to be re-registered to the Access amplifier. Please refer to the Activate registration guide on the Lightspeed website.

  - If there is a second remote, check to see if that operates correctly

PROBLEM: Software update is needed

SOLUTION: Go to https://app.tara.lightspeed-tek.com/ and follow the steps.

- For a step by step video tutorial please visit https://www.youtube.com/watch?v=dGnhziACJ9c

If you review these instructions and still have questions, call Lightspeed Technical Services at 800.732.8999, 5 am – 5 pm, PST. *Customers outside the U.S. should contact their local reseller.*

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 on transceivers 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) 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

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 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 a l'interieur de l'appareil, qui peut être d'une ampleur suffisante pour constituir 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 rebus 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 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).

34

FCC Notice to User

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.

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 (that is, the antenna for radio or television that is receiving" the interference).

- •Reorient or relocate and increase the separation between the telecommunications equipment and receiving antenna.

- •Connect the telecommunications equipment into an outlet on a circuit different from that to which the receiving antenna is connected.

- •Consult the dealer or an experienced radio/TV technician for help.

ENGLISH:

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

FRENCH:

NOTE IMPORTANTE: Pour se conformer au règles d'exposition des ondes RF par la FCC, la (ou les) antenne(s) utilisée(s) par ce transmetteur doivent être installées de façon à être séparée d'une distance d'au moins 20 cm de toute personne et ne doit pas être utilisée près ou en conjonction avec aucune autre antenne ou transmetteur. Aucune modification à l'antenne ou à l'appareil n'est permise. Toute modification à l'antenne ou à l'appareil peut résulter que l'appareil excèdera l'exposition aux ondes RF règlementaires et ainsi annuler le droit à l'usager d'utiliser l'appareil.

FCC RF RADIATION EXPOSURE STATEMENT

For body worn operation, the portable part (Flexmike) has been tested and meets FCC RF exposure guidelines.

This device must not be co-located or operating in conjunction with any other antenna or transmitter. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTICE TO CANADA USER

ENGLISH

This device complies with Industry Canada licence exempt RSS standard(s).

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.

FRENCH

Le present appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisee aux deux conditions suivantes:

1. L'appareil ne doit pas produire de brouillage, et

2. L'utilisateur de l'appareil doit accepter tout brouillage radioelectrique subi, meme si le brouillage est susceptible d'en compromettre le fonctionnement

Notice for USB

RF Radiation Exposure Statement

ENGLISH

Your mobile device 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.

FRENCH

Votre appareil mobile 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.

NOTE: Lightspeed 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.

Canada, Industry Canada (IC) Notices

ENGLISH

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 for this device is IC ID 1732B-LSRCN. This includes accessories such as the Flexmike (IC 1732B-LSFMN), Sharemike (IC 1732B-LSSMN) and Media Connector (IC 1732B-LSMCN).

French

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. L'identifiant IC de cet appareil est IC ID 1732B-LSRCN. Ceci inclus les accessoires comme le Flexmike (IC 1732B-LSFMN), Sharemike (IC 1732B-LSSMN) et un Media Connector (IC 1732B-LSMCN).

Cet équipement est conforme aux limites d'exposition aux radiations IC inaux doivent suivre les instructions d'utilisation spécifiques pour satisfaire la conformité à l'exposition IC, veuillez suivre les instructions de fonctionnement décrites dans ce manuel.

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

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.

11509 SW HERMAN ROAD

TUALATIN, OREGON 97062

TOLL FREE: 800.732.8999

PHONE: 503.684.5538

FAX: 503.684.3197

LIGHTSPEED-TEK.COM