

Redcat™

Classroom Audio System



User Manual





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OVERVIEW

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.



Important Safety Instructions (cont.)

To avoid potential equipment damage and/or serious injury, READ AND FOLLOW all safety precautions when installing the TOPCAT. WARNINGS are included throughout the procedural steps in this guide, and are repeated below for emphasis.

- **USE A LICENSED ELECTRICIAN FOR POWER CONNECTIONS.** The TOPCAT system uses standard 100 – 240VAC power. Obtain the services of a licensed electrician when supplying and connecting power to the ceiling enclosure. BE SURE electrical installation complies with local building codes. Improperly installing and/or connecting power to the system may result in EQUIPMENT DAMAGE, serious INJURY and/or DEATH.
- **DO NOT INSTALL ALONE.** The ceiling enclosure weighs approximately 20 lbs (9 kg), and requires at least two people to install. DO NOT install alone.
- **USE SUITABLE LADDERS.** use proper ladders or support platforms when installing the TOPCAT enclosure. DO NOT stand on chairs, tables, or other unsuitable surfaces.
- **SUPPORT THE CEILING ENCLOSURE PROPERLY.** DO NOT allow the full weight of the ceiling enclosure to rest on the tile grid of the ceiling. The ceiling enclosure is designed to be suspended at TWO POINTS by suspension wires (secured to rafters or other suitable building structure) and to rest LIGHTLY on the tile grid.



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure, that may be sufficient magnitude to constitute a risk of electric shock.



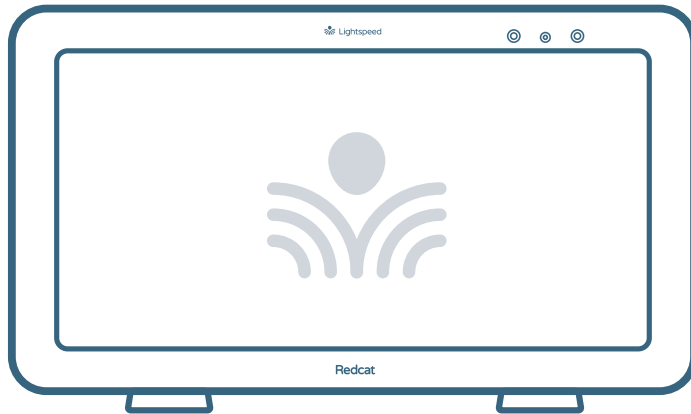
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



OVERVIEW

System Components and Unpacking

The standard configuration of the Redcat will contain:



Redcat

FCC ID:ORV-LSRCN

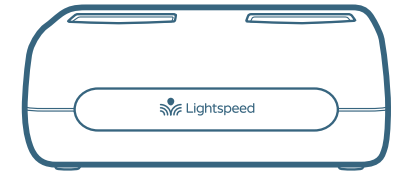
Receiver/Amplifier and Power Supply



Flexmike

FCC ID:ORV-LSFMN

Classroom Microphone



Cradle Charger

and Power Supply



PLEASE NOTE: Redcat and any wireless components (microphones, Activate Station, Media Connector, Pods) are paired together at the factory. Please keep all components together as a system. Moving them from one system or room to another will result in the need to re-pair them to function.



Optional Accessories



Media Connector

FCC ID:ORV-LSMCN

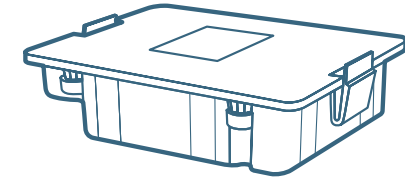
with power adaptor and cable



ShareMike

FCC ID:ORV-LSSMN

Handheld Microphone

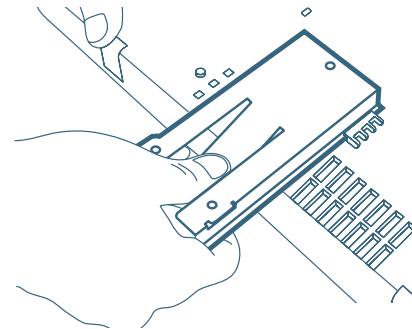


Redcat Battery Pack

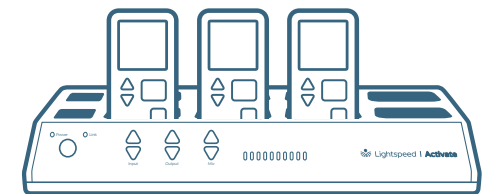


Wall Mounting

power supply bracket



Security Bracket



Activate System

FCC ID:ORV-LSACT

ACT-6P add-on speaker pods

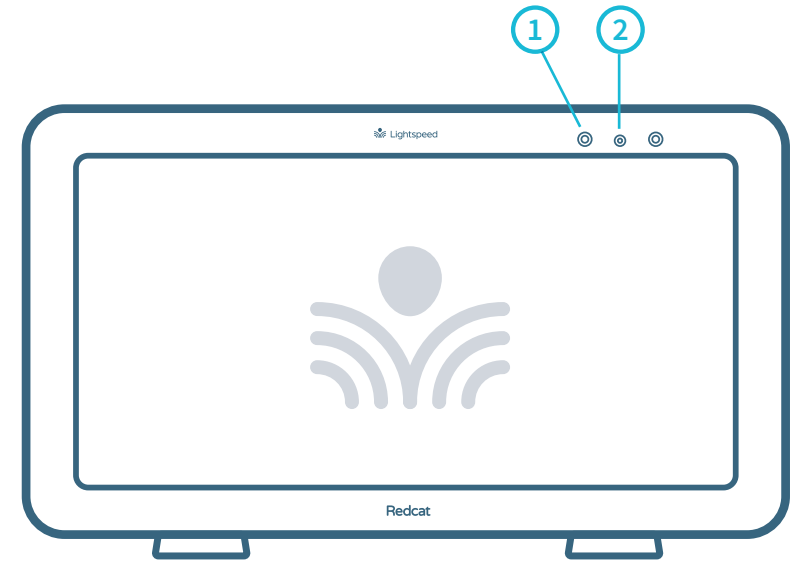
For further information on Activate for small group instruction, please visit www.light-speed-tek.com



Controls and Connections

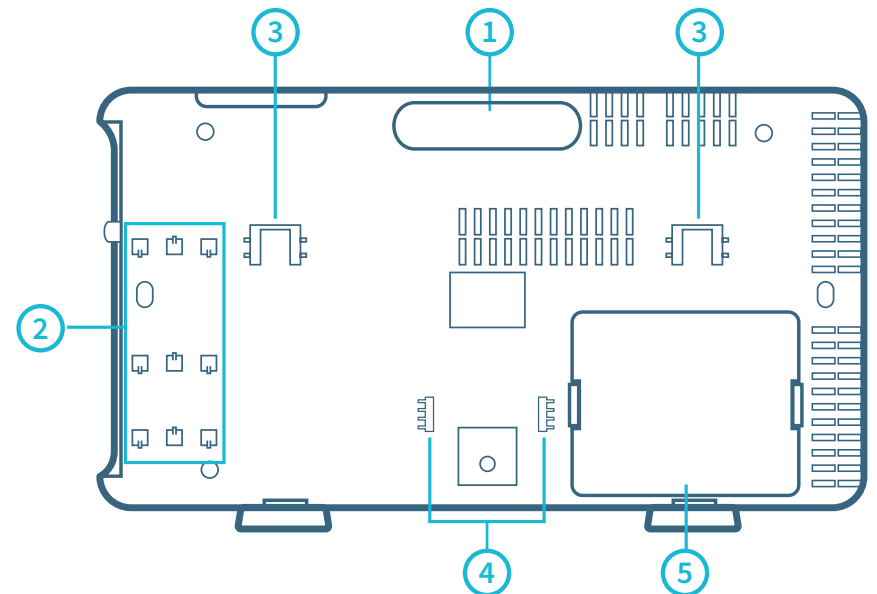
FRONT PANEL

1. **STATUS LIGHT:** Microphone link and pair indicators
Solid white: Audio link has been established
Solid blue: Indicates fixed part mode
Alternating blue/white: Registration in process
Solid white: Indicates portable part mode
Off: Unregistered or nothing linked
2. **POWER LIGHT**
Solid white: Indicates power on



REAR PANEL

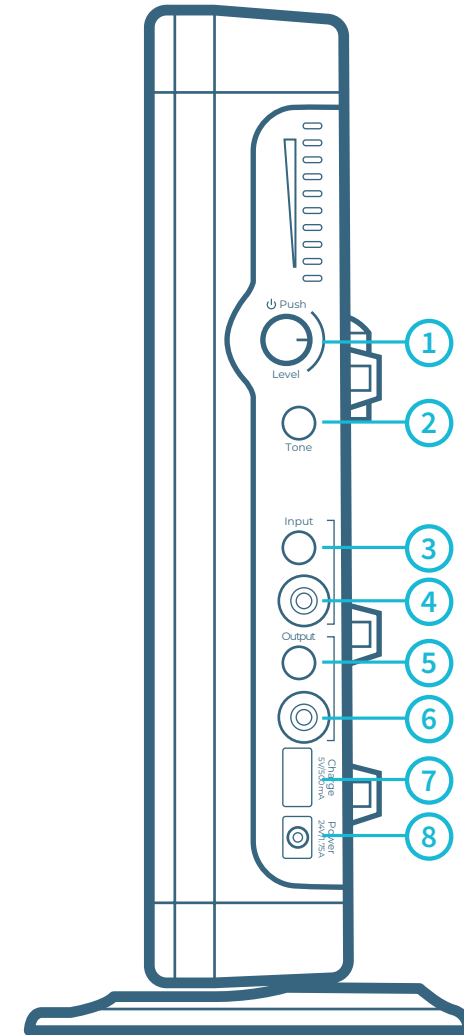
1. **CARRYING HANDLE INSET**
2. **CABLE MANAGEMENT AND STRAIN RELIEF**
3. **WALL MOUNTING SLOTS**
4. **SECURITY BRACKET SLOT**
5. **COMPARTMENT FOR OPTIONAL BATTERY PACK**





Side Panel Controls and Connections

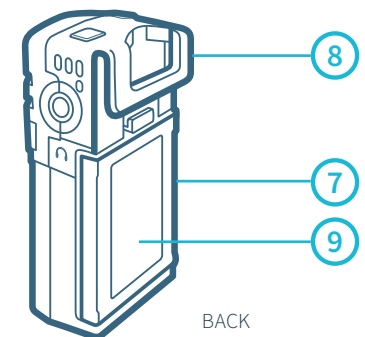
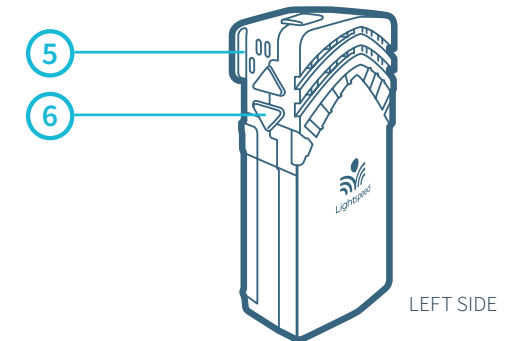
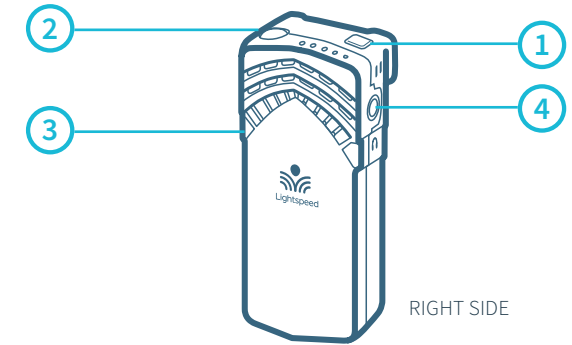
1. **POWER BUTTON / VOLUME ADJUSTMENT:** Press this button to turn the system power on or off. This also functions as an adjustment knob for the volume and tone depending on the mode selected (see 5,6,7 below).
2. **TONE SELECTOR:** Selects Tone as the mode for the adjustment knob (1) for the microphone. This adjusts the bass or treble that is heard through the classroom speaker.
3. **AUDIO INPUT VOLUME SELECTOR:** Selects Volume as the mode for the adjustment knob (1) for the audio sources connected to the audio input jack below.
4. **AUDIO INPUT JACK:** 3.5mm stereo connector for connecting to a computer or mobile device as an audio source.
5. **AUDIO OUTPUT VOLUME SELECTOR:** Selects Volume as the mode for the adjustment knob (1) for the audio device connected to the audio output jack below.
6. **AUDIO OUTPUT JACK:** 3.5mm stereo connector for connecting to an assisted listening device (ALD) or to a computer for recording.
7. **EXTERNAL DEVICE/POWER PORT:** Charge for external device.
8. **POWER:** Plug the power supply (24V/1.75A) into this jack.





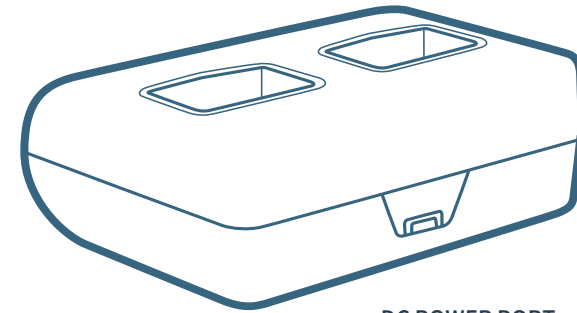
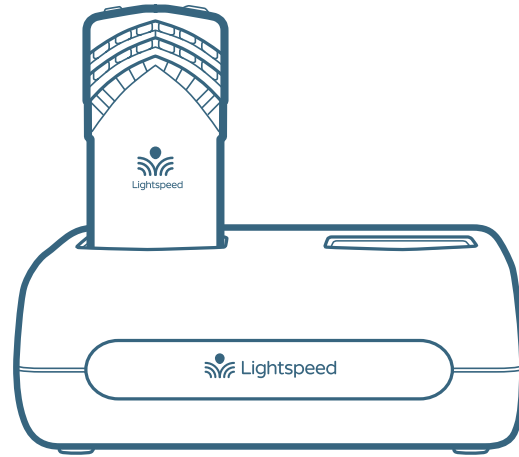
Flexmike Controls and Connections

1. **POWER/MUTE SWITCH:** Press and hold to power on, press to mute, press and hold to power off. Blue light indicates mute, white light indicates talk.
2. **MIC 1 STATUS:** Lighted to indicate microphone is registered as MIC 1
Solid white: Normal operation
Flashing white: Linking in progress
3. **MIC 2 STATUS:** When using a second microphone, this LED is lighted to indicate microphone is registered as MIC 2 (same behavior as MIC 1 status light above)
4. **EARBUD/MIC CONNECTION:** Connect the earbud for monitoring for use with Pods only, also for use with optional EMA (earset) and LMA (lapel) microphones.
5. **CHARGING/LOW BATTERY INDICATOR:** Lights red when charging, green when fully charged. When in operation, turns red to indicate low battery. White, normal operation.
6. **MICROPHONE VOLUME UP/DOWN**
7. **USB INPUT:** Connect audio source to send to 975.
8. **LANYARD INTERFACE:** \Insert the lanyard into this hook to wear the Flexmike.
9. **BATTERY:** Remove the battery to replace the rechargeable battery pack





Flexmike/Sharemike Cradle Charger



DC POWER PORT:

Connect the 5V/1.0A
DC power cord here.



SET-UP & USE / OPERATION

Determine Set-Up Location

The Redcat is shipped with feet to stand on a cabinet or tabletop. Alternatively, the fee can be used as wall mount brackets.

TABLETOP (RECOMMENDED)

- Virtually no setup time
- Greater flexibility to move to different locations

WALL-MOUNT

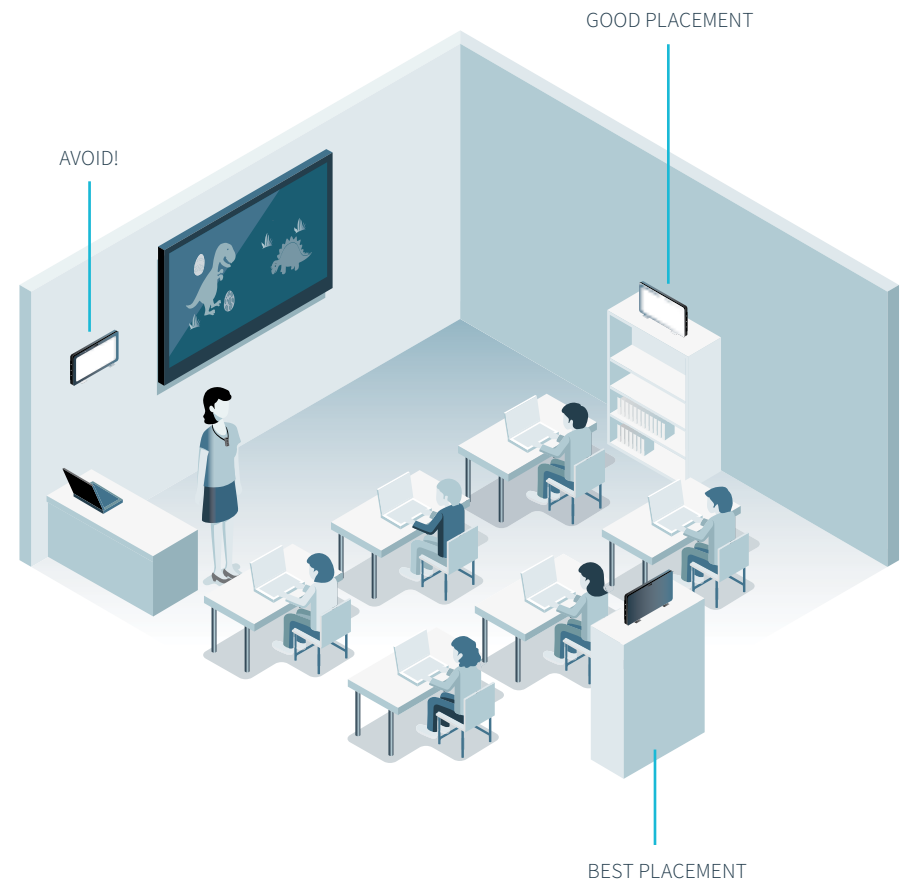
- More permanent setup
- Greater security

A. TABLE-TOP SET-UP

First, consider that the Redcat should be placed within 7 feet of an electrical outlet and on a surface about 6 feet off the ground.

Next, find a location as far away as possible from the teacher who will be using the mic.

- The best place is against the wall opposite where the teacher will be speaking.
- If this is not possible, other good locations are along either wall next to the teacher or in a corner.
- Avoid placing the Redcat next to where the teacher instructs. Putting the Redcat in close proximity to the teacher's mic can result in feedback.



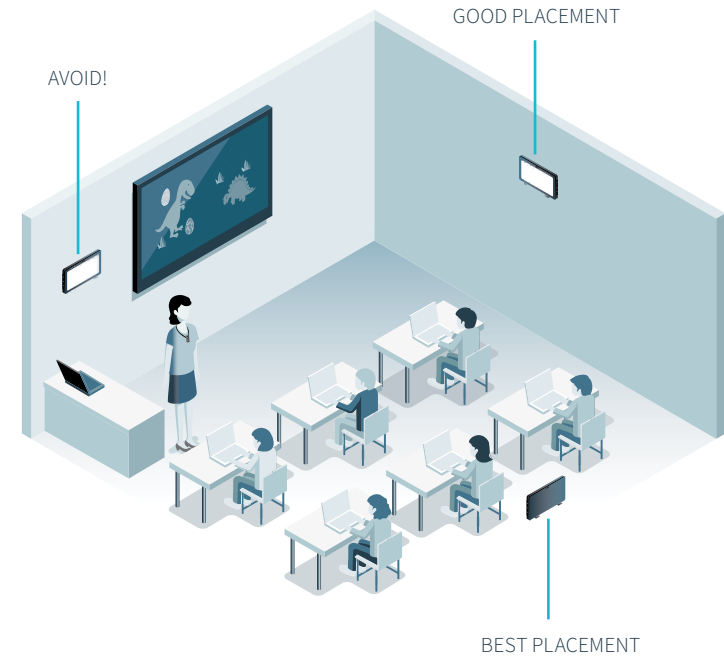


B. MOUNTED ON A WALL

First, consider that the Redcat should be placed within 7 feet of an electrical outlet and about 6-8 feet off the ground.

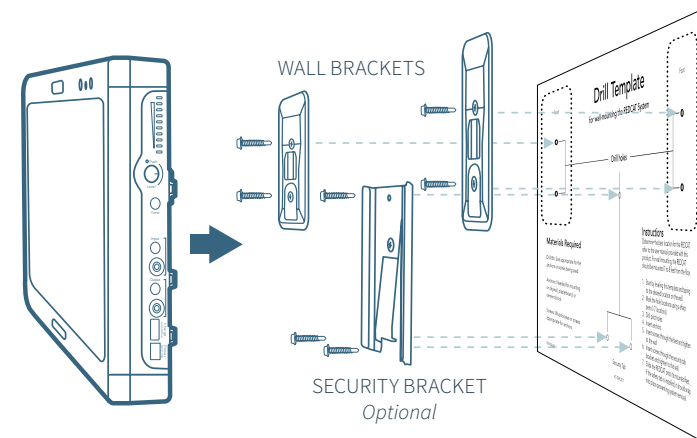
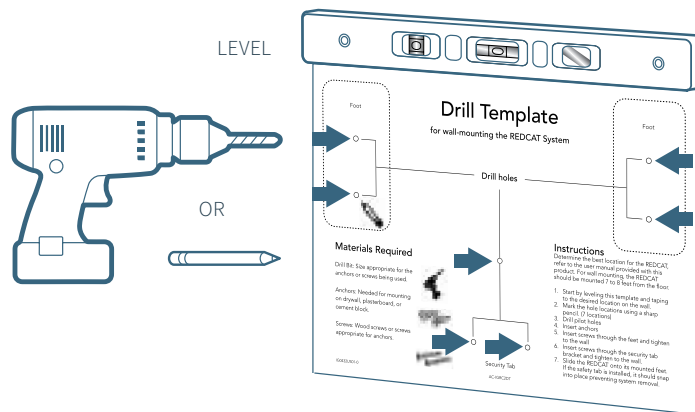
Next, find a location as far away as possible from the teacher who will be using the mic.

- The best place is centered on the long wall opposite the teacher.
- If this is not possible, other good locations are on the wall next to the teacher.
- Avoid placing the Redcat on any wall close to where the teacher usually stands to instruct the class. Having the teacher's mic too close to the Redcat can result in feedback.



USING THE WALL TEMPLATE

1. Level template and tape to wall
2. Mark position of drill holes on wall
3. Drill pilot holes
4. Insert wall anchors
5. Remove feet from Redcat and place over anchors
6. Insert and secure screws through the Redcat feet into the anchors
7. Insert and secure screws through the Redcat feet into the anchors
8. If using optional security bracket, mount on wall using the provided screws and anchors
9. Slide the Redcat onto the wall-mounted feet

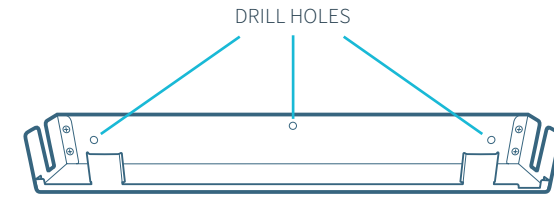




C. OPTIONAL WALL/POWER SUPPLY BRACKET INSTALLATION

INSTALL WALL BRACKET

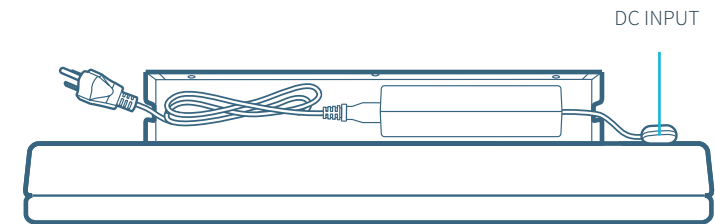
- Mark position of the three drill holes on the wall
- Drill pilot holes
- Insert wall anchors as needed
- Insert and secure screws through the bracket into the anchors



WALL BRACKET

ATTACH REDCAT AND POWER SUPPLY

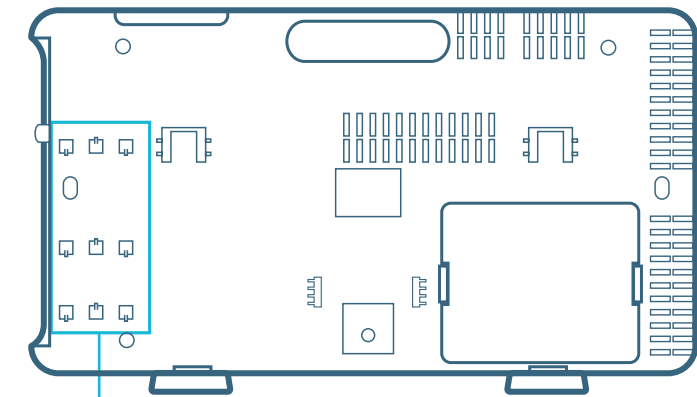
- Slide the Redcat onto the wall-mounted bracket inserting the bracket tabs into the wall mount slots
- Place the power supply and power cord into the bracket
- Insert the DC connector into the 'DC INPUT' on the Redcat and plug the other end into an electrical outlet. Use the slot on the end of the bracket to hold the power cord in place



TOP VIEW

CABLE MANAGEMENT

- Use the tabs on the back of the Redcat for cable management and strain relief

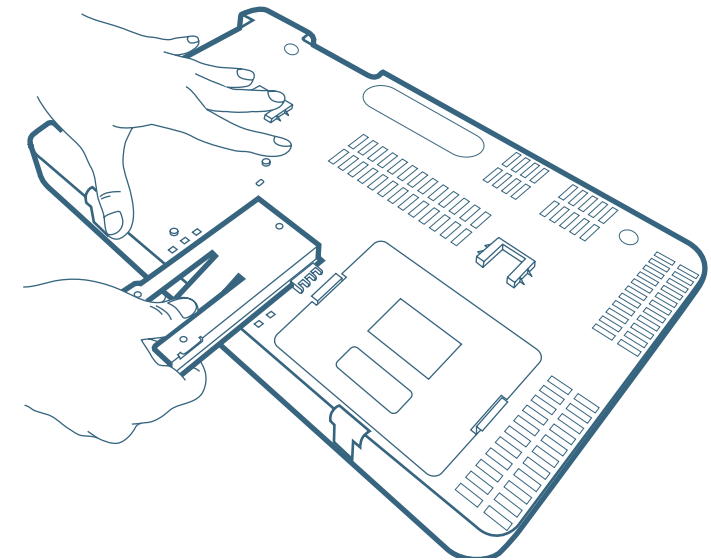


STRAIN RELIEF TABS



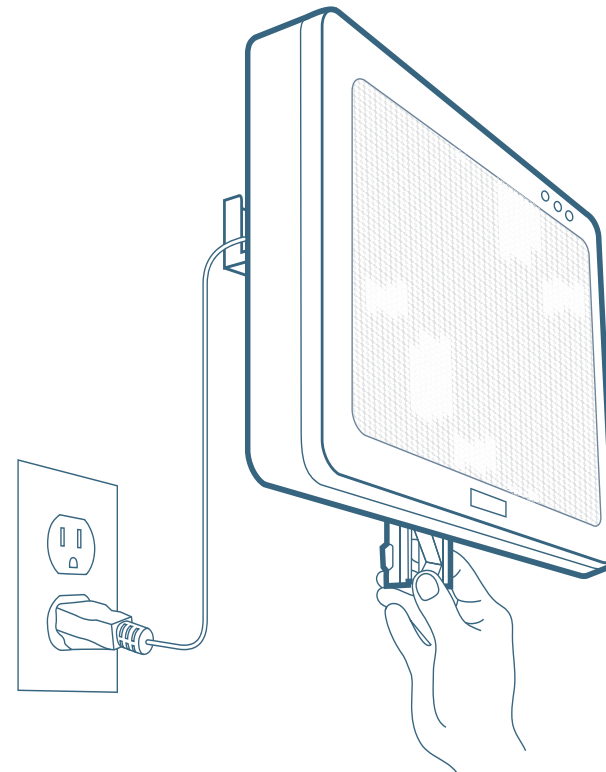
D. ADDING OPTIONAL SECURITY BRACKET TO POWER SUPPLY BRACKET

- Complete “Install wall bracket” steps on previous page.
- Before sliding the Redcat onto the bracket, slide the security bracket halfway onto the wall mounting slots.
- Continue with “Attach Redcat and power supply” steps.



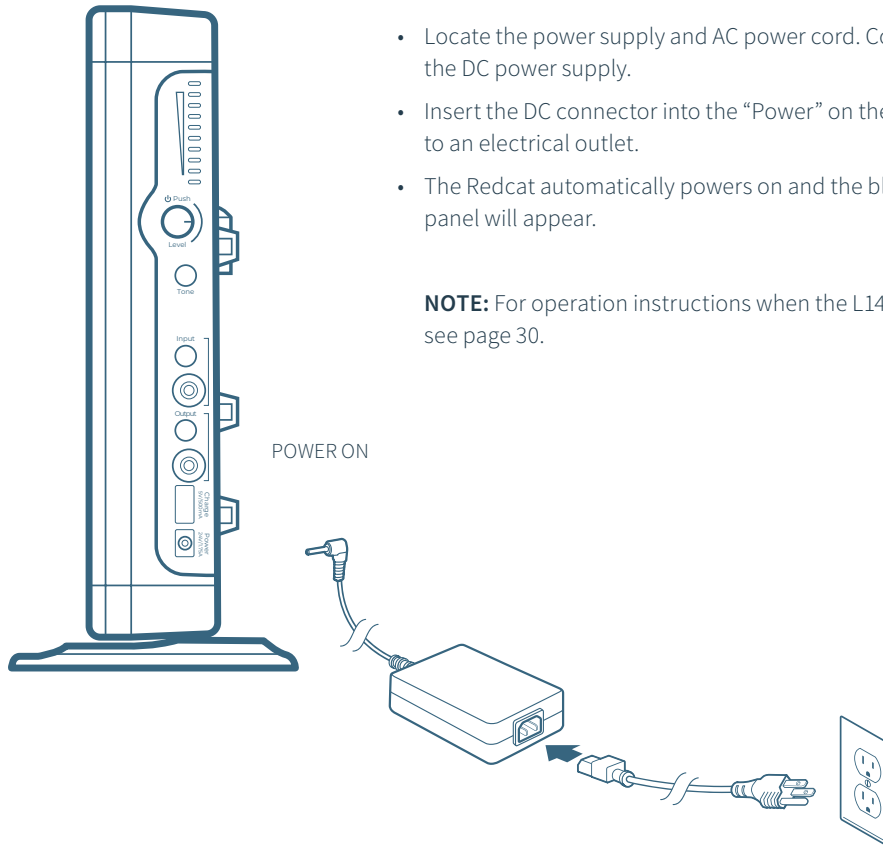
- After the Redcat is in place, hold the top of the Redcat and push the security bracket into the slot until you hear it ‘click’ in place.

NOTE: If the Redcat needs to be removed, use a small flat blade screwdriver to pry the security bracket toward the wall and out of the slot on the back of the Redcat. Lift the Redcat off the power supply bracket.





Connecting the Power Supply



- Locate the power supply and AC power cord. Connect the AC power cord into the DC power supply.
- Insert the DC connector into the “Power” on the Redcat and plug the other end to an electrical outlet.
- The Redcat automatically powers on and the blue Power light on the front panel will appear.

NOTE: For operation instructions when the L14V battery pack is installed, see page 30.

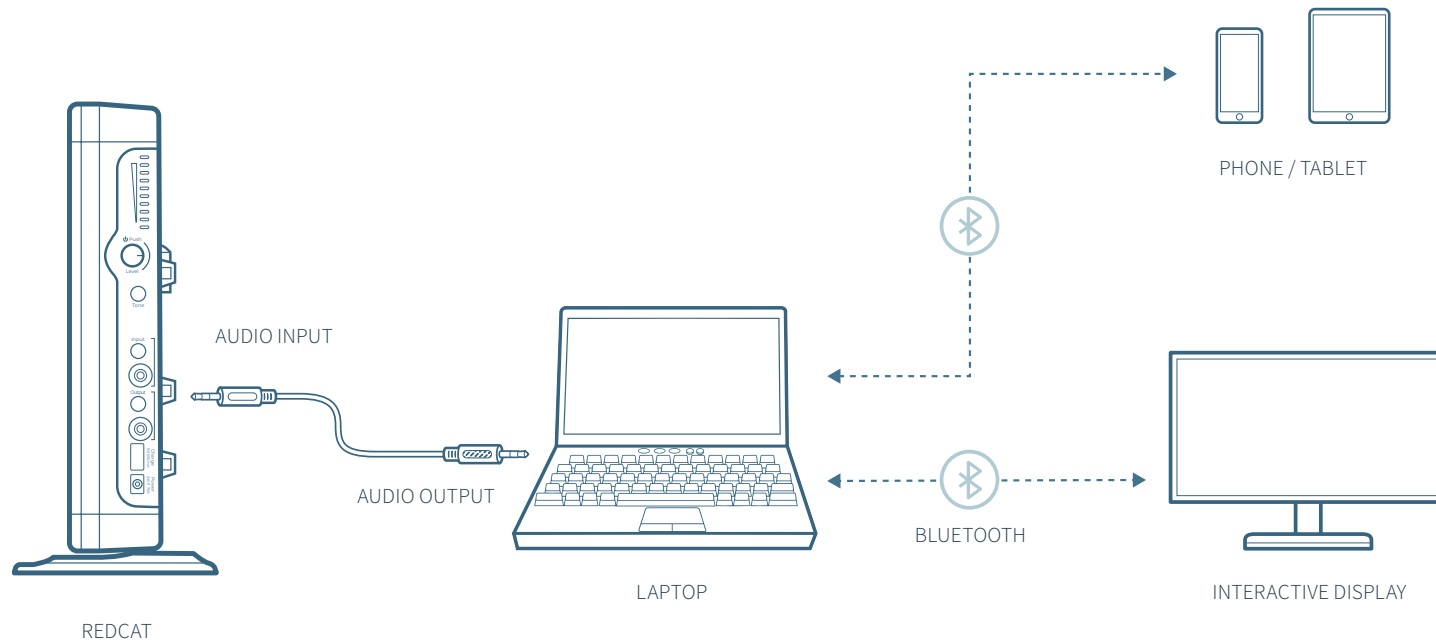


Audio Integration

In this section you will find instructions on how to connect an external audio device like a TV, DVD or computer directly into the Redcat.

AUDIO INPUT

The Redcat has one AUDIO INPUT with volume control for connecting to classroom audio sources. Use a patch cable (not included) to connect a computer, iPod, iPad, or other audio source.





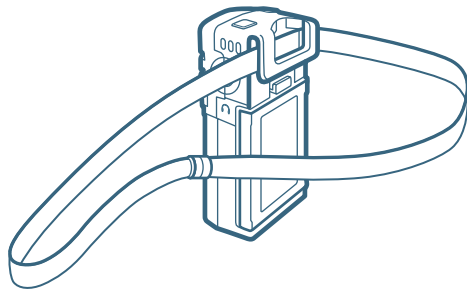
Charging the Flexmike

BEFORE USE, THE FLEXMIKE SHOULD BE CHARGED

It will take 8-9 hours for the Flexmike to obtain a full charge. A fully charged Flexmike will last for up to 8 hours of use. If microphones are used daily, they should be charged each night.

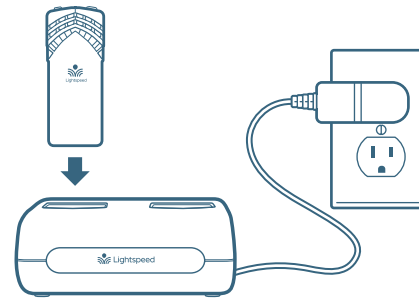
When properly inserted into a cradle charger, the power status light will glow red and the red light on the Flexmike power button indicates the battery pack is charging. The power status light will glow green to indicate that charging is complete and a full charge has been reached.

Replacement lithium polymer battery packs may only be purchased through LightSpeed Technologies (part # 77-L3.7V-A). Do not attempt to charge with other battery packs. They can overheat and expand creating a significant hazard and damaging the microphone (this is not covered by warranty).



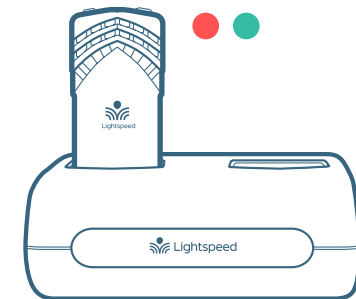
ATTACH LANYARD

Hang the Flexmike on the lanyard opposite the magnetic clasp.



CONNECT CRADLE CHARGER

Plug power cord into the cradle charger and then plug the AC end into an electrical outlet.



CHARGE FLEXMIKE

Place the Flexmike into the cradle.

The LED on the Flexmike power light will glow red indicating charging has started.

When charging is complete, the power status light will glow green.

NOTE: If Activate Station was purchased with your system, please refer to page 24 for charging instructions.



DAILY OPERATION

Operating the Flexmike

1. AT THE START OF THE DAY, REMOVE FLEMIKE FROM THE CHARGER

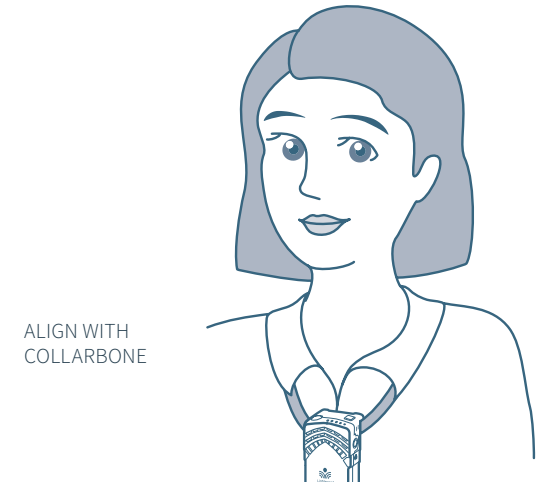
- The microphone will default to the Mute position, the status light will turn to white.
- Place the microphone around your neck.
- Press the power/mute button. The light will turn blue, indicating the microphone is active and ready to use.
- Adjust volume with the UP/DOWN buttons if necessary.
- If Flexmike needs to be powered down for some time, press and hold the power button. To power Flexmike again, press and hold the power button until the blue light begins to blink.

2. PRIVATE CONVERSATIONS

- Mute the Flexmike during private conversations by momentarily pressing the power button. When muted, the blue light turns white.
- When conversation is over, momentarily press the power button again to unmute the Flexmike.

3. END OF DAY

- Place the Flexmike into the cradle charger and ensure the it is plugged in to an outlet.
- The Flexmike will stay powered on during charging, but will automatically be muted.
- It is not necessary to turn off the Topcat at end of day, but you may do so by pressing the power button on the front panel of the Activate or the Media Connector.
- If you do want to power it down, when Flexmike is removed from charging the next day, it will automatically power the Topcat on.



POWER / MUTE BUTTON
& STATUS LIGHT



VOLUME CONTROL



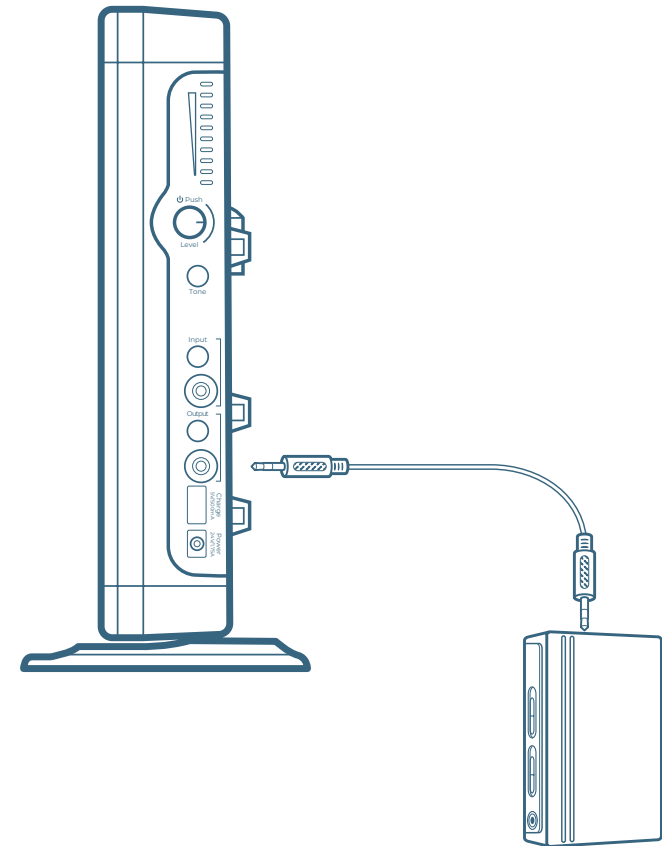
TIPS TO OBTAIN OPTIMUM AUDIO PERFORMANCE

- 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 Flexmike, with a momentary press of the power button, during private conversations with a student, parent, or other classroom visitor. An additional momentary press of the power button will unmute the Flexmike.
- Recharge microphone(s) each night. When recharged nightly, the microphone will last through a typical school day.



Output to Assistive Listening Device (ALD)

1. Turn the ALD (Assistive Listening Device) volume control on the Redcat side panel counterclockwise all the way the down.
2. Determine the size and type of audio input jack on the device as many manufacturers' products differ in connector size and shape. Many personal FM transmitters require a 3.5mm to 3.5mm patch cable (part# MSC3535, not included).
3. Connect a patch cable from the ALD's microphone jack or AUX input to the 3.5mm audio jack labeled "ALD OUT" on the side of the Redcat.
4. With the Redcat and ALD turned on, speak into the Flexmike and slowly adjust the ALD volume control until the appropriate audio level is attained in the ALD's receiver headphones.
5. It may be necessary to also adjust the volume on the Personal FM receiver to achieve appropriate volume level.





Using Flexmike as Wireless Audio Link

You can connect your second (or third) microphone to your computer's USB port to enable a wireless 2-way audio link.

1

With the appropriate USB cable (USB-C for Flexmike/Sharemike) connect your microphone to your computer's USB port. This will also power/charge your microphone.

2

Open sound settings on your computer:

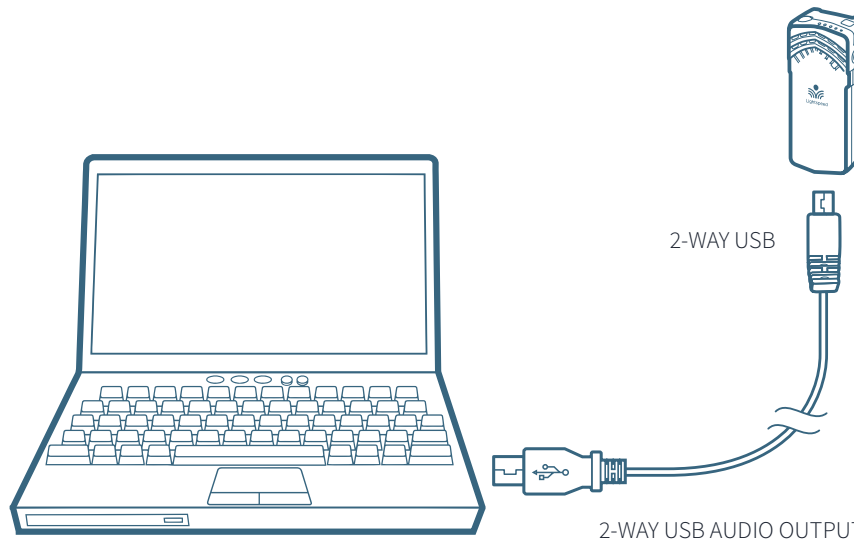
- Select FlexmikeAudio as the Output source to send all computer audio to Redcat.
- Select FlexmikeAudio as the Input source to use the Lightspeed microphones as the computer microphone audio for video conferencing and recording applications.

3

You may also need to select FlexmikeAudio as the speaker and microphone audio in your video conferencing application the first time you use it.

SEND AUDIO FROM THE COMPUTER to Redcat to ensure all audio from the computer (videos, video conferencing, audiobooks, music, etc) can be played through the Redcat system and speakers.

SEND AUDIO TO THE COMPUTER from Redcat to ensure the teacher's Flexmike and any student microphones are clearly picked up by a video conferencing solution.



Plug your external audio equipment, such as a computer, into the USB input on the bottom of the Flexmike

USB cable sold separately. Lightspeed offers a USB-A to USB-C cable for sale (part #USBC)



TIP: If your system includes two Flexmikes, you can use one mic for instruction and the second mic to transmit audio through the system.



Daily Operation Instructions

1. AT START OF DAY, REMOVE THE MICROPHONE FROM THE CHARGER AND PUT ON

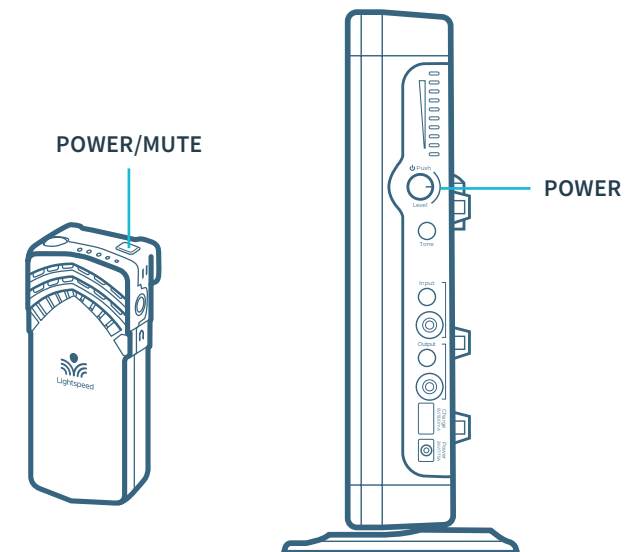
- The microphone will default to the Mute position, the status light will turn white.
- Place the microphone around your neck.
- Press the power/mute button, the light will turn blue, indicating the microphone is active and ready to use.
- Adjust volume with the UP/DOWN buttons if necessary.
- If Flexmike needs to be powered down for some time, press and hold the power button. To power Flexmike again, press and hold the power button until the blue light begins to blink.

2. PRIVATE CONVERSATIONS

- Mute the Flexmike during private conversations by momentarily pressing the power button. When muted, the blue light turns white.
- When conversation is over, momentarily press the power button again to unmute the Flexmike.

3. END OF DAY

- Remove the Flexmike from around your neck.
- Place the Flexmike into the cradle charger and ensure the it is plugged in to an outlet.
- The Flexmike will stay powered on during charging, but will automatically be muted.
- It is not necessary to turn off Redcat at end of day, but you may do so by pressing the power button on the front panel.
- If you do want to power it down, it will automatically power Redcat on when Flexmike is removed from the charging cradle





OPTIONAL ACCESSORIES

ShareMike Controls and Connections

1. POWER BUTTON

POWER STATUS LIGHT

Solid red: During operation, turns red to indicate low battery

Solid white: Normal operation

When charging in Cradle Charger:

Solid red: Charging

Solid green: Charging complete

2. MIC 1 STATUS:

Lighted to indicate microphone is registered as MIC 1

Solid white: Normal operation

Flashing white: Linking in process

3. MIC 2 STATUS:

Lighted to indicate microphone is registered as MIC 2

Solid white: Normal operation

Flashing white: Linking in process

MUTE/TALK STATUS LIGHT

Solid blue: Talk

Solid white: Mute

4. MICROPHONE VOLUME UP/DOWN

5. USB INPUT:

Connect audio source to send to Topcat. USB input can also be used for charging.

6. IR TRANSMITTER:

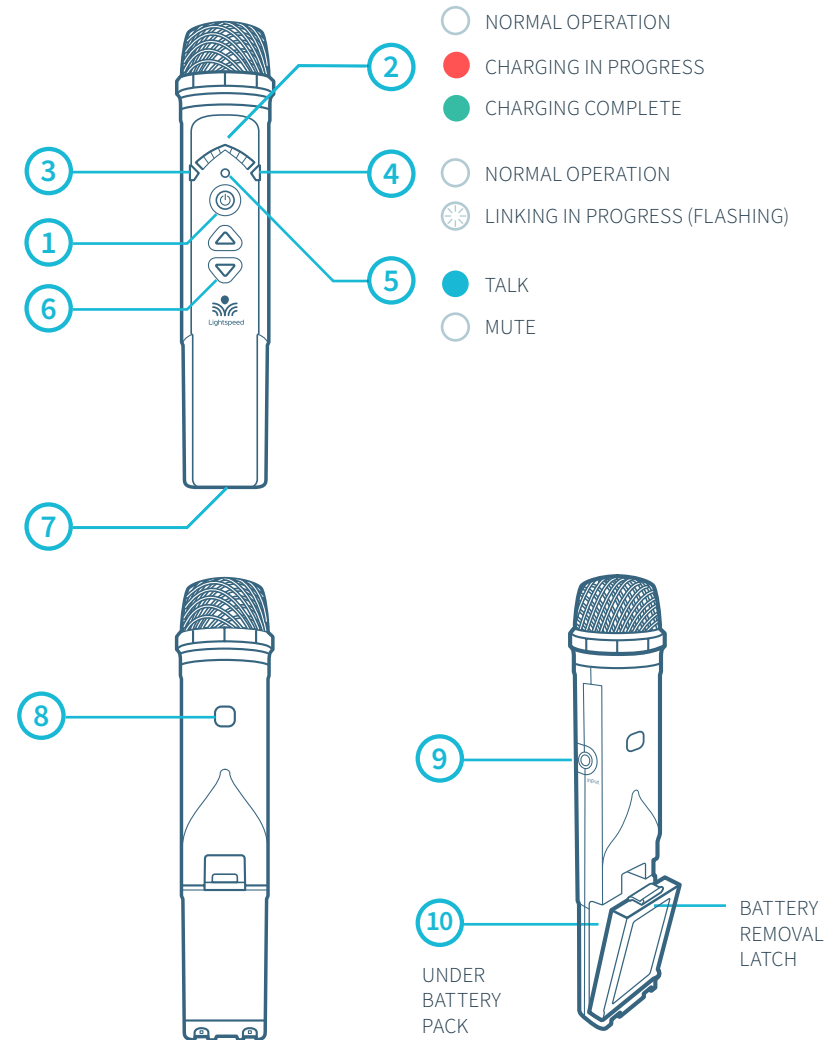
For pairing to base unit

7. AUDIO INPUT:

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

8. VOLUME LOCK:

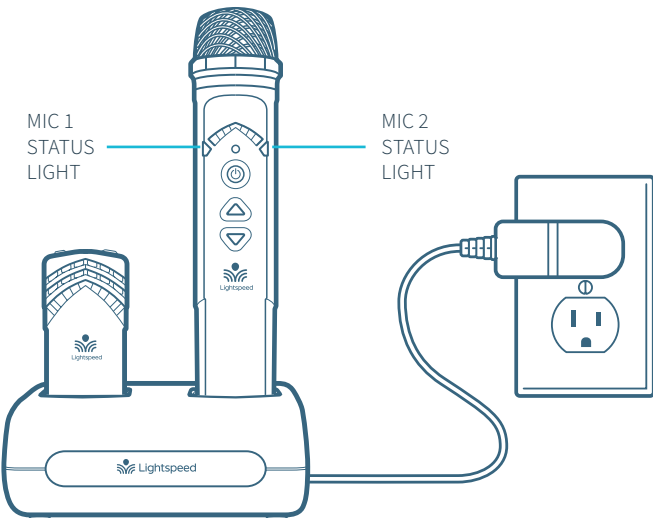
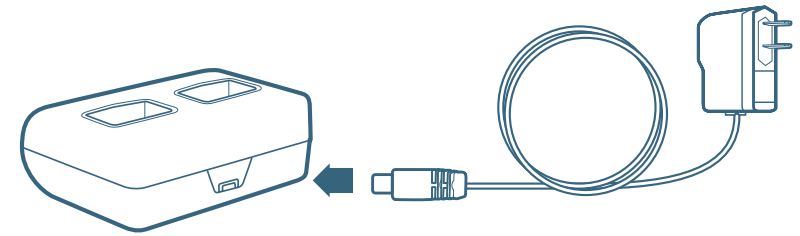
Disables volume controls.





Sharemike: Charging

1. Make sure the charger is plugged into a wall outlet. Connect one end of the charging cable into the jack labeled CHARGE on the bottom of the Sharemike.
2. Plug the other end into the USB-C jack on the back of the cradle charger.
3. If the Sharemike is registered as MIC 2, the MIC 1 light on the microphone will glow red to indicate charging.
4. Leave the Sharemike plugged in overnight (8-10 hours) to obtain a full charge. The light will turn green when charging is complete.
5. If Sharemike is registered as MIC 1, low battery and charging indicator will be the MIC 2 light.
6. During charging the blue light will stay on.



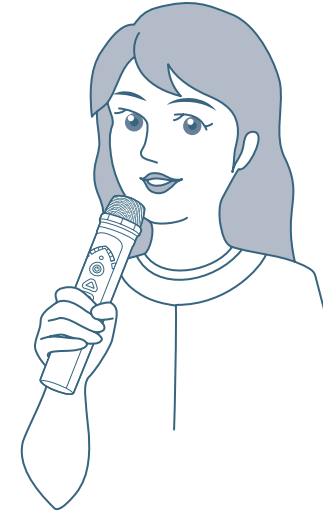
PLEASE NOTE: The 975 and microphone(s) are paired together at the factory and all components should be kept together as a system. Moving them from one system, or room, to another will result in the need to re-pair.



Sharemike: Initial Set-Up

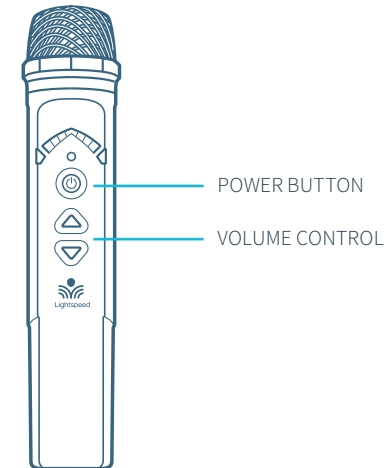
ENSURE THE REDCAT IS POWERED ON

- The power light on the Redcat will be solid white.



TURN ON THE SHAREMIKE

- Press and hold the power button until the LED lights.
- While speaking in a normal voice, increase the volume using the Activate Volume button or the Media Connector Microphone Volume knob until your voice is barely audible.



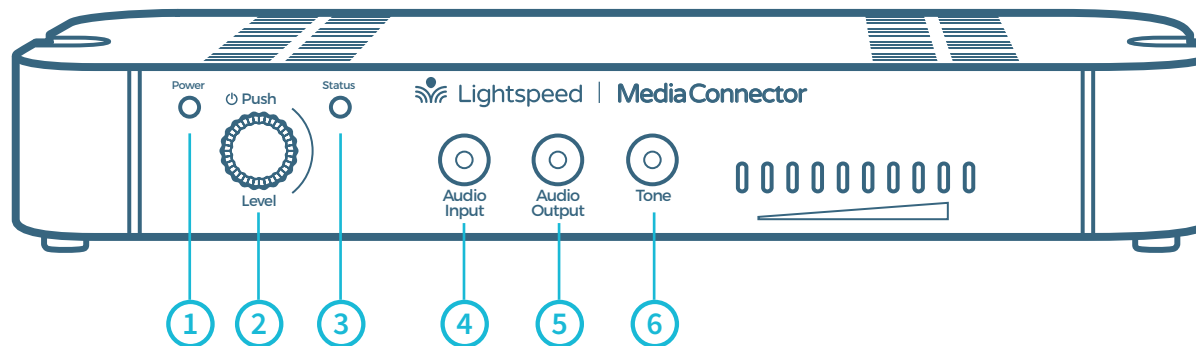
PLEASE NOTE: This equipment is designed to supplement and distribute the user's voice so they are able to speak in a conversational tone. Having the volume set too high will result in feedback and listener fatigue.



Media Connector Controls and Indicators

FRONT PANEL

1. **POWER LIGHT**
White light: Power on
2. **POWER BUTTON / VOLUME ADJUSTMENT:** Press this button to turn the system power on or off. This also functions as an adjustment knob for the volume and tone depending on the mode selected (see 5,6,7 below).
3. **STATUS LIGHT:** Microphone link and pair indicators.
Solid blue: Microphone(s) is paired to the system
Off: Microphones are not paired to the system
4. **AUDIO INPUT VOLUME SELECTOR:** Selects Volume as the mode for the adjustment knob (2) for the audio sources connected to the audio inputs on the back of the Media Connector.
5. **AUDIO OUTPUT VOLUME SELECTOR:** Selects Volume as the mode for the adjustment knob (2) for the audio device connected to the audio output jack on the back of the Media Connector.
6. **tone SELECTOR:** Selects Tone as the mode for the adjustment knob (2) for the microphone. This adjusts the bass or treble that is heard through the classroom speaker.

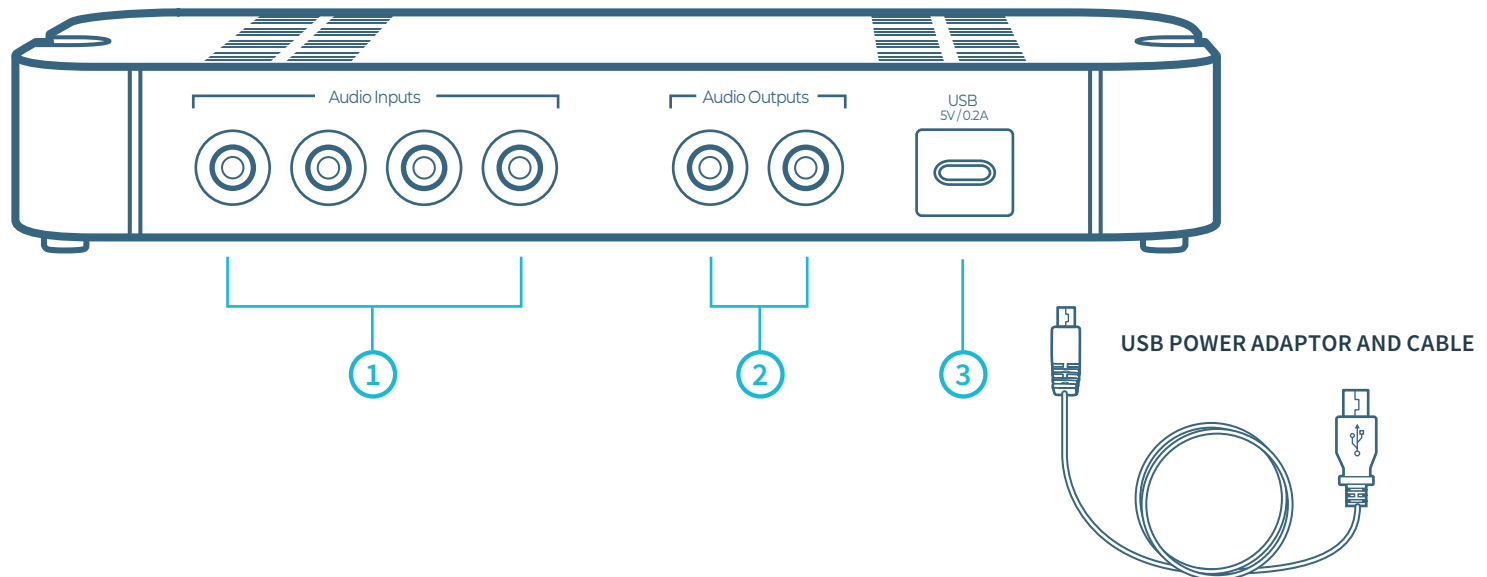




Media Connector Controls and Indicators (Optional)

BACK PANEL

1. **AUDIO INPUTS:** 3.5mm stereo connectors for connecting classroom audio sources to be played through audio system.
2. **AUDIO OUTPUTS:** 3.5mm stereo connectors for connecting to an assisted listening device (ALD) or to a computer for recording.
3. **USB INPUT:** Plug the USB-C end of the power cable into this USB port on the Media Connector.
 - The USB port supplies power to Media Connector when connected to the Media Connector power supply, or from a laptop.
 - It also acts as an input for a digital audio when connected to an audio source. Note that when the USB is used for audio input, the other four audio input jacks are not operational.





Using the Media Connector

The Media Connector can be used as the primary volume control for the audio sources you've connected.

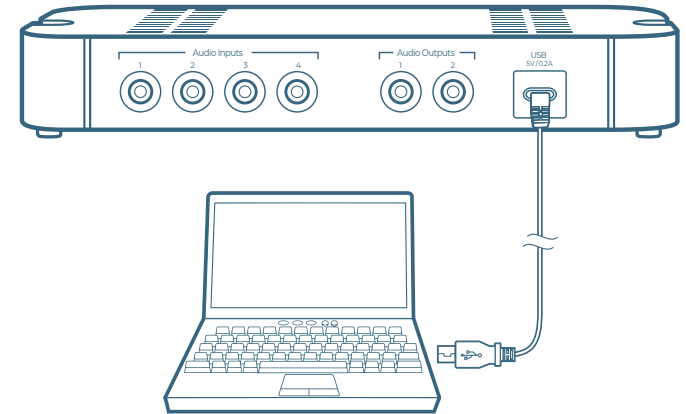
1. Plug the micro USB end of the power cable into the USB port on the back of the Media Connector. Plug the other end of the cable into the USB power adaptor. Also, the USB cable could be plugged into a computer for power.
2. Connect the audio source(s) to the Media Connector using the 3.5mm cables provided.
3. Set the audio source volume to provide sound through the Redcat.
4. Use the AUDIO IN volume control on the front of the Media Connector to increase or decrease the audio source sound level.

NOTE: When Media Connector is powered on and registered to Redcat, only its microphone volume and tone controls are operational while those on the Redcat are not.

NORMALIZING AUDIO SOURCE VOLUME LEVELS

Use the Media Connector as the master audio volume control for the classroom. When two or more audio sources are connected, you will need to normalize volume settings by setting all connected audio sources to the same sound level while leaving the Media Connector AUDIO IN volume control set to its center setting. The Media Connector is an audio mixer using a master volume control to adjust the volume of all audio sources at once. Use the following procedure to set audio source volumes:

1. Connect the multimedia audio sources to the Media Connector using the 3.5mm cables provided.
2. Set the AUDIO IN volume control on the Media Connector to its center position.

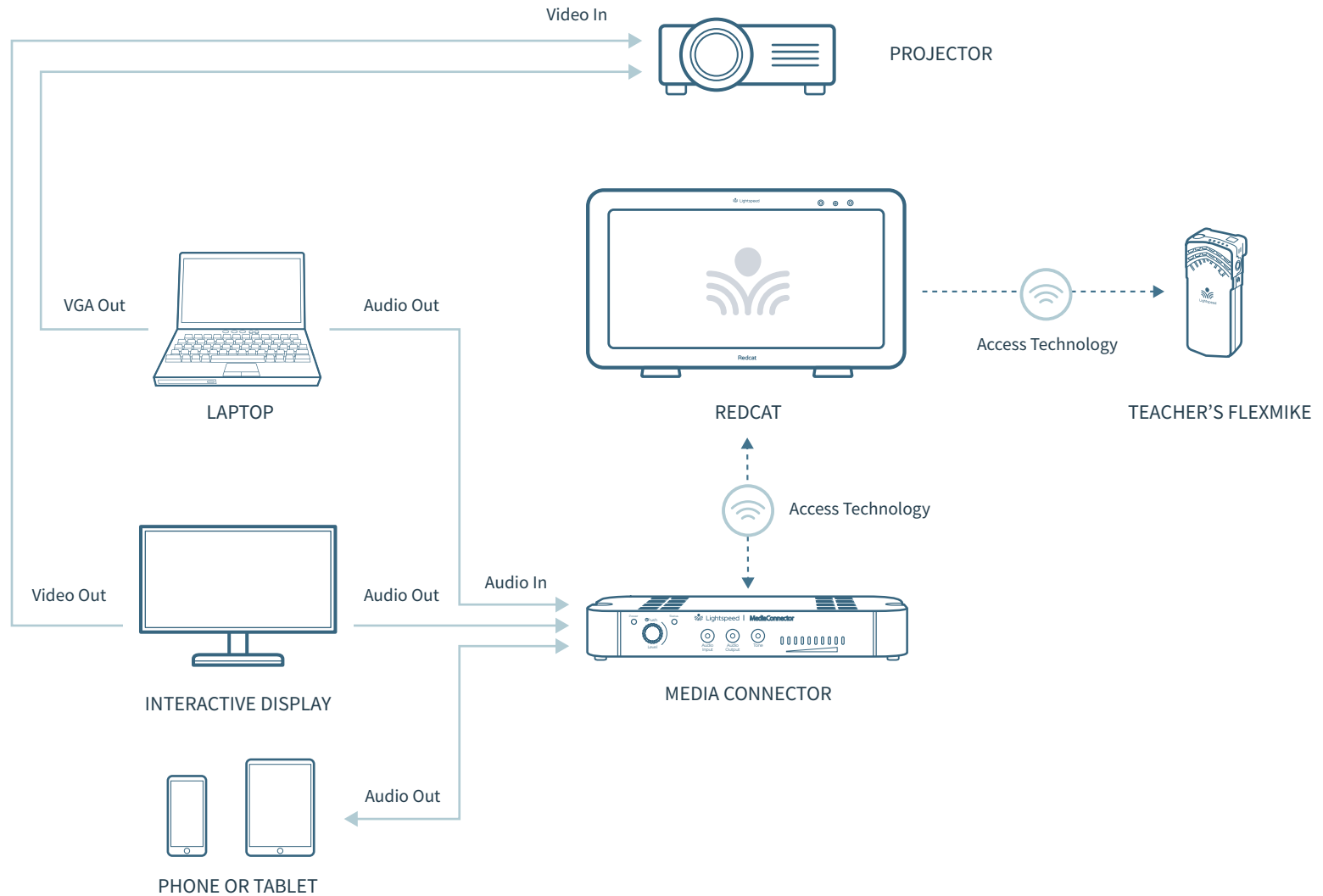


3. Turn on an audio source that does not have an accessible audio level control. (DVD, VCR player)
4. Adjust the Media Connector AUDIO IN volume control so the audio level playing through the speaker is appropriate for the classroom.
5. Turn off the first audio source.
6. Turn on the second audio source. Use its volume control to balance the audio output to the same audio level played through the speaker as the first source
7. Repeat steps 5 and 6 for the remaining audio sources.
8. Now, the Media Connector's AUDIO IN volume can be used to increase or decrease the volume level for all audio sources as desired.



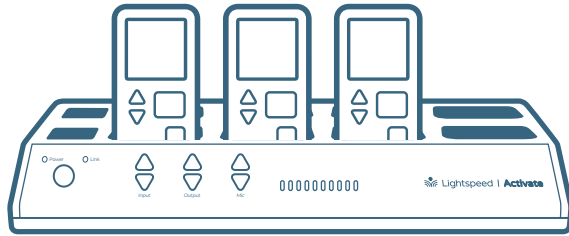
Audio Integration with Media Connector

The Media Connector is designed to integrate multiple audio sources quickly and easily.





Activate System with Pods for Small Group Instruction

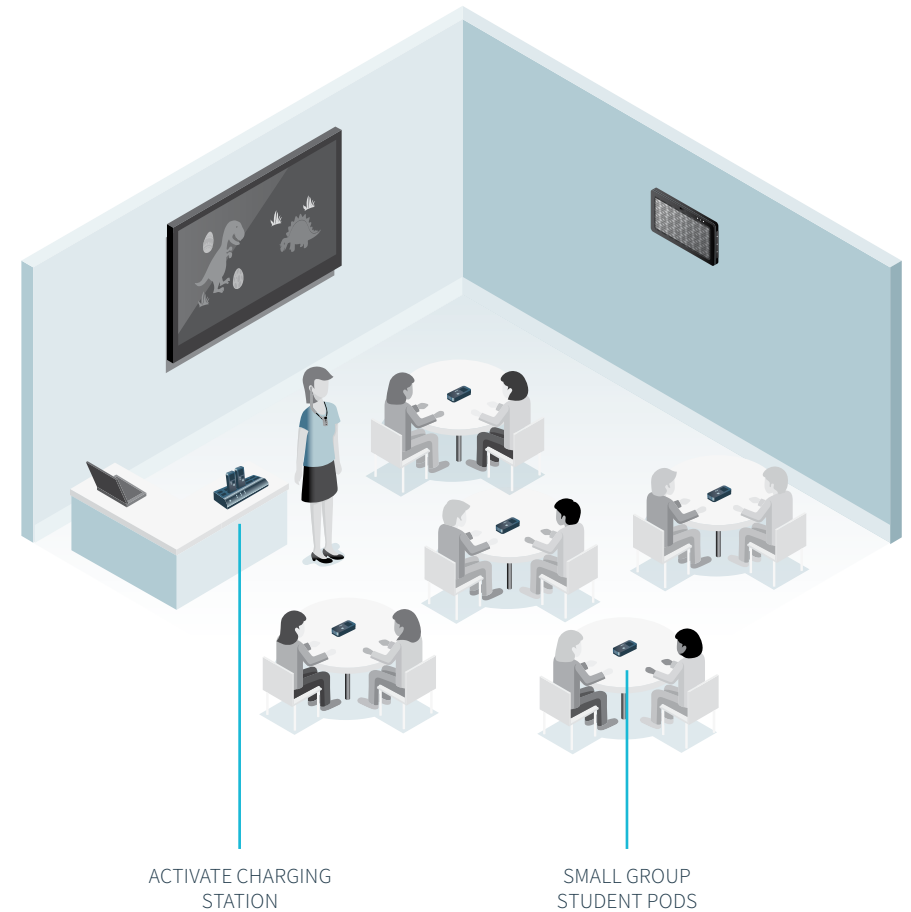


Activate with Pods is a two-way communication system that can be seamlessly added to the Redcat classroom audio system to facilitate small group instruction.

With the small group audio pods and the Activate app, Activate opens up communication and interaction between the teacher and student groups, including:

- Teacher monitoring of individual small groups
- Direct instruction to each independent group
- Student group sharing with the whole class
- Reinforce and redirect group activities
- Capture audio and video of student groups or of individual speaker

If your Redcat system was configured with Activate pods, please refer to the Activate System user guide for operation and setup instructions.

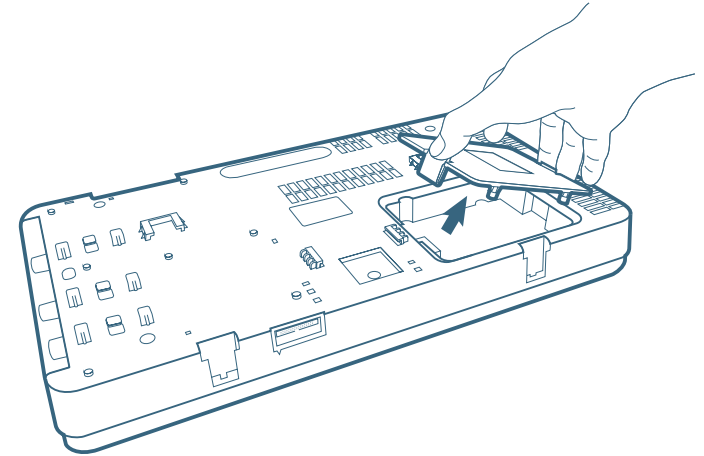




Battery Pack for Redcat

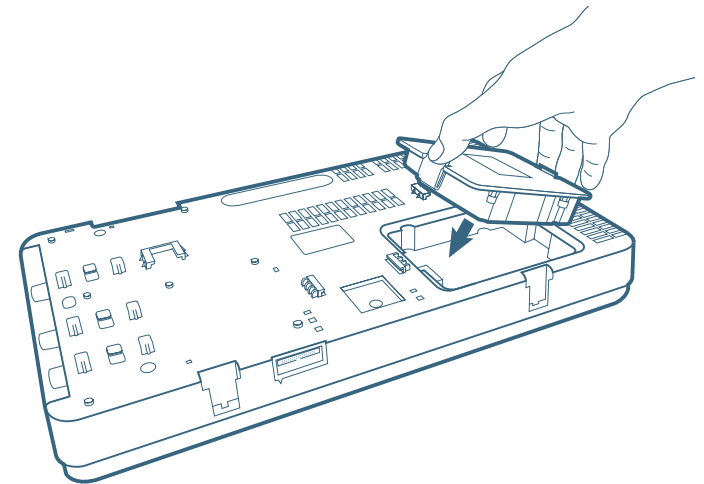
ADDING A BATTERY PACK TO REDCAT (PART # L14V)

1. Find and open the battery compartment by squeezing together the tabs located on each side of the compartment door. Remove and recycle door.
2. Place the battery pack into the compartment by squeezing together the tabs on either side of the battery pack and inserting it into the compartment. Match the connection on the battery pack with the connection in the battery compartment on the back of Redcat.
3. Ensure that the battery pack snaps firmly into the Redcat.
4. Redcat will automatically power on when battery pack is inserted properly.
5. If Redcat has been powered down, press the ON/OFF button to power on the unit. The front panel POWER light will glow blue.



USING REDCAT WITH BATTERY PACK

1. When Redcat is in use with the battery pack, the POWER light will blink red if battery is low.
2. Charge battery pack by plugging Redcat into the 24V / 1.75A power supply.
 - If Redcat is turned on, the POWER light will turn red for two seconds when power supply is first plugged in, and then turn solid blue.
 - The POWER light will be solid red while charging if Redcat is turned off. The light will turn green when charging is complete.
3. Redcat will continue to operate while battery pack is being charged.
4. When Redcat is being charged while turned on, you can check charging status by pressing the ON/OFF button. The POWER LED will glow green for a fully charged battery and red to indicate more charge is necessary. The ON/OFF button must be pressed again to turn Redcat back on.
5. When the Redcat is powered by the battery pack only, it can be turned off completely by pushing the ON/OFF button. To help maintain battery life, it will automatically turn off after two hours of inactivity.
6. When the Redcat is powered by battery pack only, it cannot be turned on again by Flexmike, Sharemike, Activate Station or Media Connector. The ON/OFF button must be pushed.
7. It is not necessary to unplug the power supply for every day use.



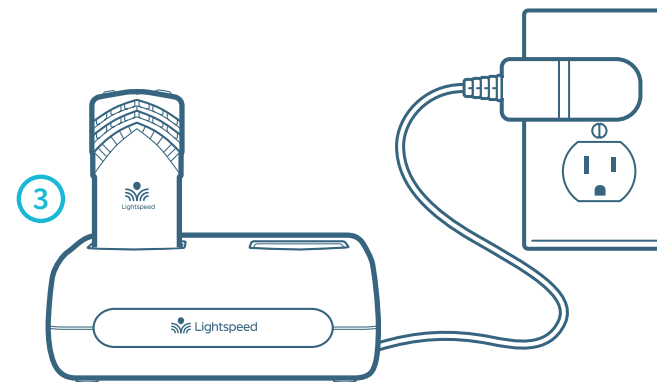
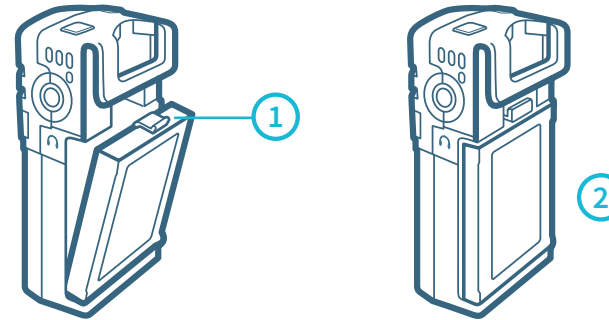


MAINTENANCE & TROUBLESHOOTING

Flexmike Battery Replacement

BATTERY PART # 77-L3.7V

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

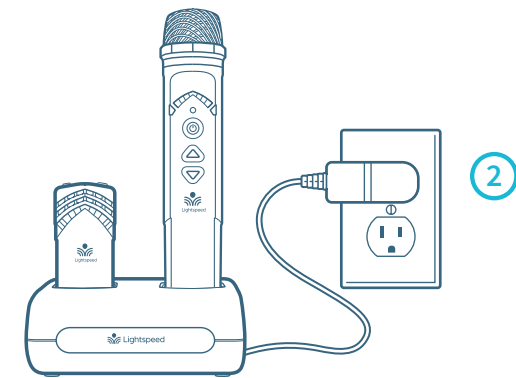
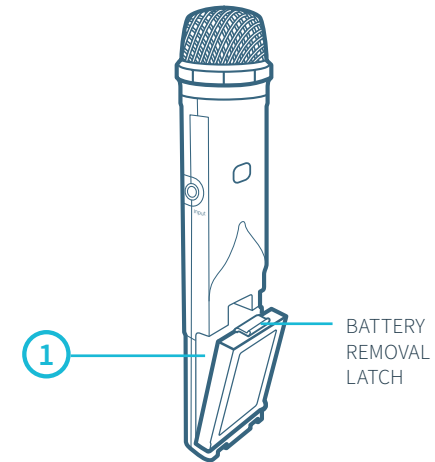




ShareMike Battery Replacement

BATTERY PART # 77-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 Flexmike in a cradle charger to charge the battery pack.



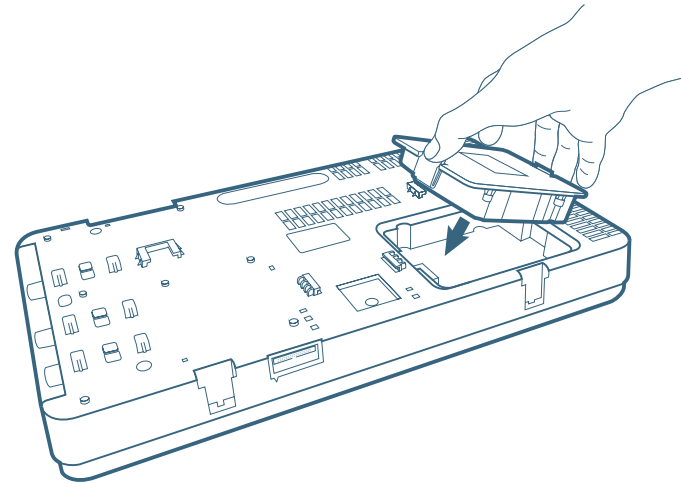
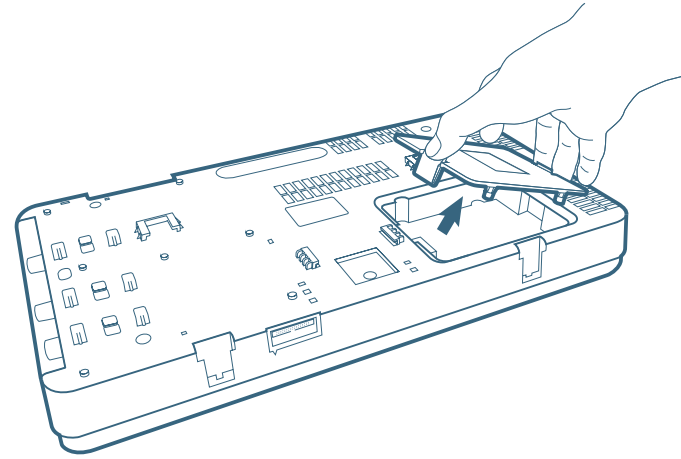
Please dispose of all batteries properly. Lightspeed provides battery recycling at no charge. Contact us at 800-732-8999 for details. Available in U.S. only. Customers outside the U.S. should contact their local reseller.



Redcat Battery Replacement

BATTERY PART # L14V

1. Find and remove the battery pack on the back of the Redcat by pinching the tabs located on each side of the battery pack.
2. Place the new battery pack into the compartment by pinching the tabs on either side of the battery pack and inserting it into the compartment. Ensure that the connection on the battery pack matches up with the connection on the back of the Redcat.
3. Ensure that the battery pack snaps into the Redcat.
4. The Redcat will automatically power on when battery pack is inserted properly.



Please dispose of all batteries properly.



Troubleshooting

COMMON PROBLEMS AND SOLUTIONS

Note: 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.

ALL PROBLEMS: Most Problems are related to low battery power.

SOLUTION: Battery Check

- Confirm batteries are charged each night. A blinking red light indicates a low battery.
- Confirm proper batteries are used. The Flexmike requires the Lightspeed NH2.4V rechargeable battery pack. The Sharemike requires the Lightspeed NH2APK rechargeable battery pack. The Redcat uses the optional L14V rechargeable battery pack.
- Make sure the battery packs obtain a full charge. A full charge takes 8-9 hours.
- When charging the transmitter, ensure the blue status light and the red charging light turn on. The green light will turn on when a full charge is reached.

PROBLEM: Microphone does not indicate a “Ready” signal (solid blue or red light)

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

- Ensure the power button on the microphone is turned on. Once turned on, the blue light should begin blinking.
- Power the microphone off, then on again after a few seconds. Wait for up to 30 seconds for the blue light to turn solid, indicating READY for operation.

PROBLEM: Low Volume or Feedback

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

- Check microphone volume level on the amplifier. If the volume is too high, feedback will occur. Adjust accordingly.
- Check input volume level on the amplifier. If the volume is too high, feedback will occur. Adjust accordingly.
- Adjust the volume level on the Flexmike.

PROBLEM: No Sound From Amplifier.

SOLUTION: Follow these steps to produce sound from Redcat.

- Confirm that the blue POWER light located on the front panel of the Redcat is on.
- Confirm the microphone is powered on and linked to the Redcat. The mic 1 status light will be green on the Redcat indicating the microphone is linked.

- Confirm that microphone is not muted. A solid red light on the top of microphone will indicate it is muted.
- Check volume level of the Redcat. Make sure that the microphone volume level on the Redcat, Activate Station or the Media Connector if present, is not turned down all the way. Slowly turn up the volume level while talking into the microphone.
- If using the optional L14V battery pack, make sure the battery pack is fully charged. The power light on the front on the Redcat should be solid blue.

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 amplifier, usually due to loss of communication between the Activate and the amplifier.
- Make sure the amplifier is plugged into power and is powered on.
- 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.

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. 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.
4. 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

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 our website at 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

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).



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 aux 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 réglementaires et ainsi annuler le droit à l'utilisateur 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 présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage, et
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même 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-LS975. 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-LS975. 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



EU Declaration of Conformity According to EU Directives EMC 2014/30/EU, LVD 2014/35/EU, RED 2014/53/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 Access, Flexmike, Flexcat Pod, Flexcat Charging Station,
Flexcat Handheld Remote Control, Media Connector Access, Sharemike, Topcat, Access
Link, 955 Access, Activate Station, Activate Pod, TCQ2, DRQ, Mobile Connector

Model Numbers: LSRCA 1881, LSFM 1881, FCP 1881, FCCS, FCHRCB, LSMCA 1881,
LSSM 1881, LSTCA 1881, LSAL 1881, LS955 1881, LSACT 1881, LSPOD 1881, TCQ2,
DRQ, MCX

As applicable, products conform to the following EU/AS/NZ test standards listed below:

Safety Standards: IEC/EN 60065 and amendments

EMC/RF Standards: EN301 406 V2.1.1 (2009-07)
EN 301489-1/-6
EN 301489-1/-17
EN 50371 (2002)
EN 50385 (2002)
EN 300 328
EN 55022
EN 55024
AS/NZ CISPER 22
AS/NZ 4268

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

Lightspeed Representative:

Michael Frost, Compliance Engineer

Date: December 12, 2018

PN: 885-0653-07

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System Components

STANDARD COMPONENTS

RCA	Redcat all-in-one wireless audio base station
24V-1.75A-NA	24V/1.75A power supply for Redcat
5V-1.0	5V power supply for FMCC
FM	Flexmike classroom transceiver with battery pack and lanyard
FL	Flexmike lavalier cord

STANDARD COMPONENTS (outside U.S. and Canada)

RCA-1881	Redcat all-in-one wireless audio base station
24V-2.5A-__	24V/1.75A power supply, specify country
FMCC -INT	Transceiver cradle charger, power supply
5V-1.0 -INT	International 5V power supply for FMCC
FM -1881	Flexmike classroom transceiver with battery pack and lanyard
NH2.4V	AA NiMH rechargeable battery pack for Flexmike
FL	Flexmike lavalier cord

OPTIONAL ACCESSORIES

ACT-6P	Activate for small group instruction
ACT	Activate charging station with Bluetooth
24V-1.75-NA	24V/1.75A power supply for ACT
SM	Sharemike handheld transceiver with battery pack
L14V	LilION rechargeable battery pack for Redcat
MCA	Wireless audio transceiver
USB1-NA	MCA power supply
USB-MCB	USB Type A-Micro B power cable for MCA
EMA	Earset microphone with TRRS connector for Flexmike
LMA	Lapel microphone with TRRS connector for Flexmike



System Specifications

REDCAT SPEAKER

Power output:	20W
Acoustic frequency response:	120 Hz - 13 kHz
DC power Input:	24V / 1.75A
Total harmonic distortion:	<1% @ 10W
Wireless communication:	Access Technology (1.9 GHz + RF4CE)
Tone control:	1 bass/treble control
Audio input:	3.5mm stereo w/ volume control
Audio output:	3.5mm stereo w/ volume control
Integrated speaker:	Exciter technology, flat-panel speaker
Audio Link indicators:	2 indicators for Flexmike 1 and 2
Device Registration:	Push button for pod(s), Flexmike(s), and remote(s)
Optional battery power:	14.4V lithium ion battery pack
Battery life:	8 hours (fully charged)
Dimensions (W x H x D):	16" x 9" x 1.75" (406 x 241 x 45mm)
Weight:	2.9 lbs (1.3 kg) without battery pack

FLEXMIKE (1-2)

Description:	Pendant-style microphone
Earbud lanyard:	Magnetic clasp with integrated earbud
Wireless communication:	Access Technology (1.9 GHz)
Audio distortion:	<1%
Integrated microphone:	Uni-directional electret
Earbud output:	3.5mm
Audio input:	3.5mm
Volume control:	+/- 6 dB
Battery power:	2.5V NiMH battery pack
Battery life:	8 hours (fully charged)
Charging:	2 contacts for cradle charging
USB connection:	Type Micro-B for charging and audio

Power:	On/off switch
Registration:	Push button for registration with Redcat
Dimensions (L x W x H):	2.9" x 1.1" x 1.0" (74 x 28 x 25mm)
Weight:	1.8 oz (51g)

SHAREMIKE

Description:	Handheld microphone
Wireless communication:	Access Technology (1.9 GHz)
Audio distortion:	<1%
Integrated microphone:	Uni-directional dynamic
Audio input:	3.5mm
Battery power:	2 AA NiMH battery pack
Battery life:	8 hours (fully charged)
Charging:	5V charging jack
Power:	On/off button
Registration:	Push button for registration with Redcat
Dimensions (L x W x H):	2.25" x 2.25" x 8.75" (57.2 x 57.2 x 222.3mm)
Weight:	7.36 oz (208.7 g)

MEDIA CONNECTOR

USB Power:	5V mini-B USB connector
Wireless communication:	Access Technology (1.9 GHz + RF4CE)
Tone control:	1 bass/treble control
Audio input:	3.5mm stereo (x4) w/ master volume
Audio output:	3.5mm stereo (X2) mixed w/ volume control
Audio Link indicator:	1 LED on front panel
Registration indicator:	1 LED on back panel
Device Registration:	Push button for Redcat Access
Dimensions (W x H x D):	7.6" x 5" x 1.13" (193.04 x 127 x 28.7mm)
Weight:	9.6 oz. (272.16g)



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TUALATIN, OREGON 97062
TOLL FREE: 800.732.8999
PHONE: 503.684.5538
FAX: 503.684.3197
LIGHTSPEED-TEK.COM