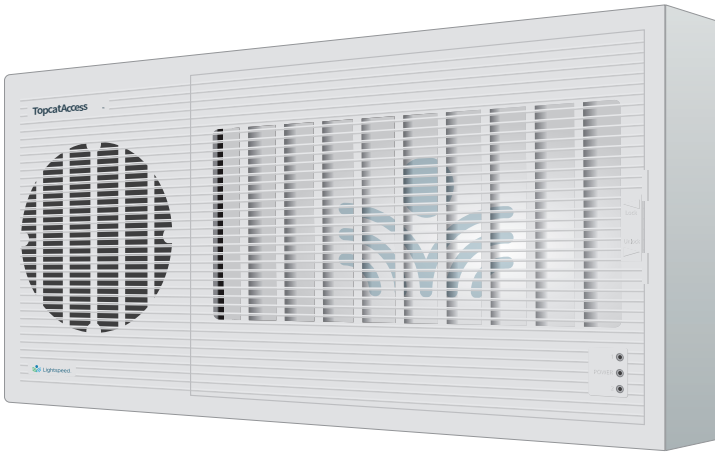




Topcat Access™

Classroom Audio System
Installation Guide



IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use the apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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 obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with a cart, stand, tripod, bracket or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. 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.
15. When the mains plug or appliance coupler is used as the disconnect device, it shall remain readily accessible.
16. Please keep the unit in a good ventilation environment.
17. Warning: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
18. Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
19. Warning - battery pack shall not be exposed to excessive heat such as sunshine, fire or the like.





IMPORTANT SAFETY INSTRUCTIONS

CONT'D

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.



CAUTION

- **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 12 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 mounting points) 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.

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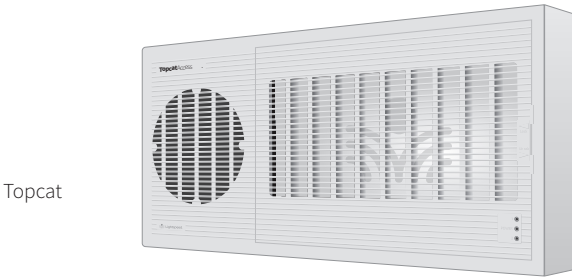
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SECTION 1:

OVERVIEW

SYSTEM COMPONENTS AND UNPACKING

The standard configuration of the Topcat® will contain:



Topcat

Flexmike
Volume Control
Microphone



Cradle Charger and
Power Supply



NOTE ON REGISTRATION: The Topcat, Microphone(s), and Activate Station or Media Connector are pre-registered together at the Lightspeed factory as required for proper operation. If paired components are separated and swapped during the installation process, they must be re-registered. Please refer to the registration instructions at www.lightspeed-tek.com/accessregistration.

During installation, Lightspeed recommends that the accessory box be labeled with the room number of the Topcat that the components are registered with for proper disbursement.

To assist in this process, Lightspeed has labeled each registered component with a system ID number. If components become separated, simply match them up by this number for proper operation. Additional system labels are included on the Daily Operation Guide should you add components, or if one of your original components should need to be replaced.

4. Troubleshooting

3. Optional
Installation

2. Installation

1. Overview

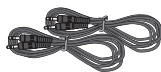
OPTIONAL COMPONENTS

Optional equipment which may be part of your Topcat system:

Activate station with
Bluetooth



Audio Cables



Media Connector
and Power Supply



ShareMike Handheld Mic &
Charger Cable



DC Extension Cable



SECTION 2:

INSTALLATION

INSTALLATION PLANNING

Before beginning installation, make sure you have the necessary tools and materials on hand and that the area underneath the proposed Topcat location is cleared.

TOOLS & MATERIALS

In addition to the contents of the Topcat system, you may need the following tools & materials:

- Flat blade screwdriver (small)
- Pliers
- Wire cutters
- Drill
- Utility knife
- Safety wire anchors
- Wire ties

NOTE: Topcat is designed for installation in a 2' x 2' or 2' x 4' suspended ceiling grid (or 600mm x 600mm international ceiling grids). If you do not have this type of ceiling, please contact your local Lightspeed Territory Manager.

4. Troubleshooting

3. Optional
Installation

2. Installation

1. Overview

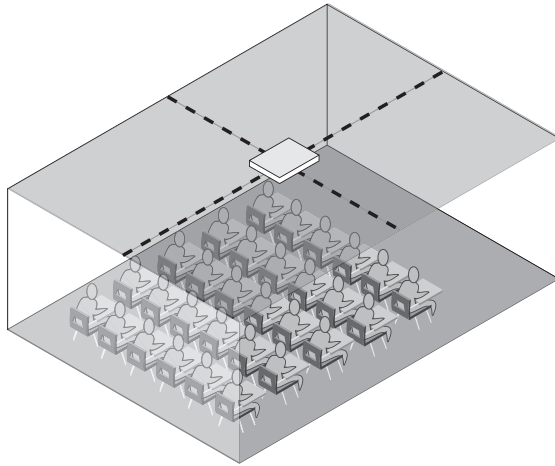
1. SELECT MOUNTING LOCATION

The Topcat is shipped ready to mount in a standard suspended ceiling grid. All hardware needed to secure the Topcat into the ceiling grid is provided. Additional hardware may be required if building structure tie-points are metal. A licensed electrician will need to provide necessary materials if Topcat is permanently connected to the building AC mains.

Topcat will distribute sound throughout a classroom of up to 1200 square feet (112 sq. meters) with ceiling heights of 9 to 12 feet. The location of the Topcat is critical to ensure even sound distribution.

1. Identify the center of the listening area of the classroom for optimum location. See Figure 1.
2. Select a ceiling tile that is free of fixtures (lighting, HVAC, etc.) nearest to the center point.
3. Remove the selected ceiling tile for Topcat installation.

Fig 1: Identify the Center of the Listening Area



2a. TOPCAT INSTALL FOR U.S. & CANADA

2' X 2' AND 2' X 4' CEILING GRID

The dimensions of the Topcat are 1' x 2' and it is designed to fit into any standard 2' x 2' or 2' x 4' suspended ceiling grid.

- The ceiling tile will need to be cut to accommodate the Topcat.
- Set the ceiling tile on a flat work surface with the patterned side facing down.
- Using a straight edge, cut a 1' x 2' section from the ceiling tile, leaving a 1' x 2' section and a 2' x 3' section (Figure 2), or two 1' x 2' sections (Figure 4).
- Locate the 2' ceiling grid t-bar provided. Locate the attachment slots in the existing ceiling grid and snap the new t-bar into place to create two openings to create a 1' x 2' and a 2' x 3' opening (Figure 3) or two 1' x 2' openings (Figure 5).

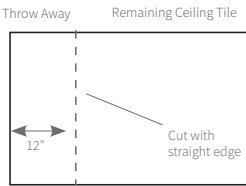


Figure 2:
Cut the 2' x 4' tile to create a 1' x 2' section and a 2' x 3' section.

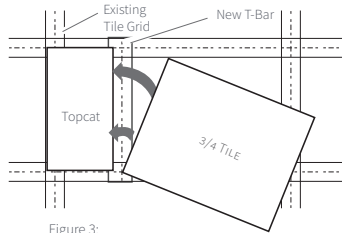


Figure 3:
Create a 1' x 2' opening and a 2' x 3' opening

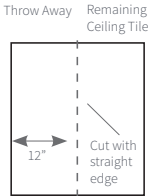


Figure 4:
Cut the 2' x 2' tile to create two 1' x 2' sections.

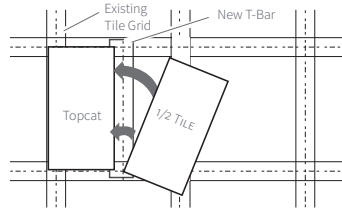
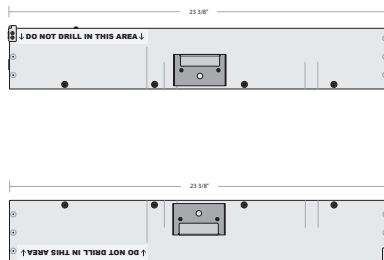
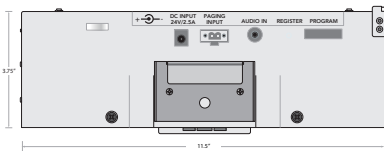


Figure 5:
Create two 1' x 2' openings

e. Dimensions of Topcat

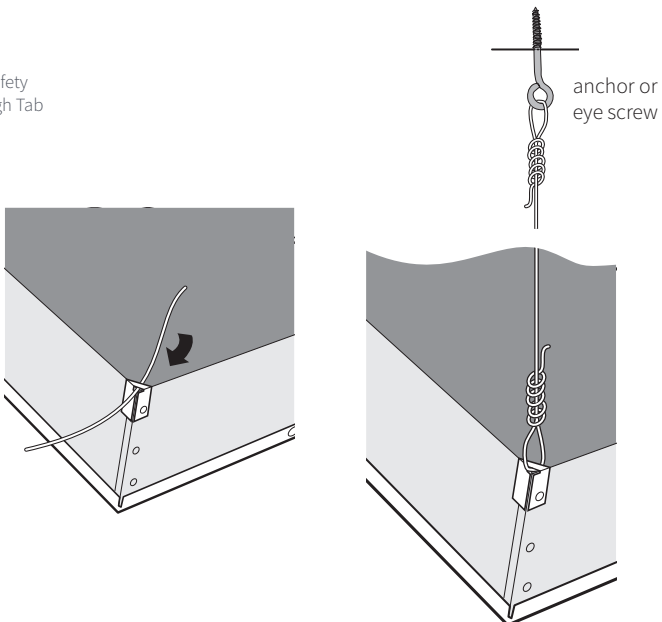


2b. SECURING THE TOPCAT FOR U.S. & CANADA

To comply with Building Codes, the Topcat MUST be secured with 2 safety wires.

- Locate the 20 ft length of safety wire. The safety wire needs to be permanently attached to the solid building structure above.
 - Cut the 20 ft safety wire in half, leaving two 10 ft pieces.
 - Install anchors (or eye screws if necessary) into the building structure.
 - Loop one end of the safety wire through the anchor (or eye screw), then twist it around itself at least five times (Figure 1). Repeat for second anchor.
 - Lift the Topcat up and lay it into the desired grid location (Figure 2, next page).
- CAUTION:** Ensure that the Topcat is stable on the grid rails with the side brackets hooked over the rails. If not stable, there could be a danger of it falling until safety wires are attached.
- Loop the other end of the safety wire through one of the tabs on the Topcat (located in opposite corners). Pull the wire through until it is taut and twist it around itself at least five times to secure the Topcat. Cut off any excess wire if needed.
 - Repeat with securing the second safety wire to the other tab. (Figure 3, next page.)

Figure 1:
Loop the Safety
Wire Through Tab



2b. SECURING THE TOPCAT FOR U.S. & CANADA CONT'D

Figure 2:
Set Into Ceiling

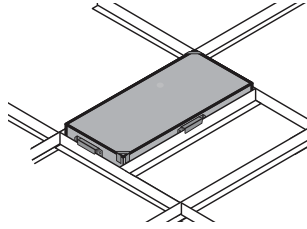
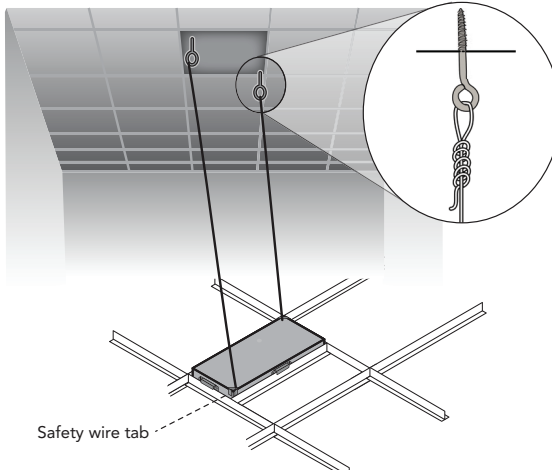


Figure 3:
Attaching the safety wire to the building structure

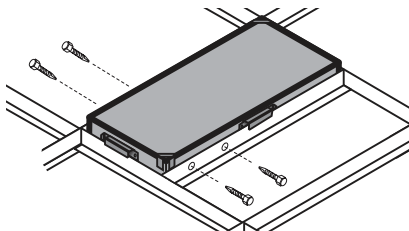


- h. When hard wiring AC power to Topcat, electrical codes require for the Topcat to be permanently affixed to the ceiling rail. Utilizing existing holes on the vertical section of the ceiling rail (center of the hole to the base of the rail must be a minimum of 15mm) drill two screws on each 2' side of the Topcat. Drilling these screws into the designated areas of the Topcat chassis will not cause harm to the product. (Figure 4).

NOTE: Do not drill in the area designated with yellow tape.

- i. Continue to step 4 in the manual, Installing and Wiring Electrical Power.

Figure 4:
Drill screws through ceiling
rail into designated areas of
Topcat



3a. TOPCAT INSTALL (OUTSIDE U.S. & CANADA)

600MM X 600MM CEILING GRID

The Topcat has spacer brackets mounted on each of the four sides. With these brackets installed and the ceiling tile is cut in half, the Topcat will fit into a standard 2' x 2' suspended ceiling grid with an additional tile support. With the brackets removed, it will fit a 300mm x 600mm ceiling grid with an additional tile support. (Figures 4 and 5)

Remove the spacer brackets from each of the four sides of the Topcat. (Figure 1, next page.)

NOTE: If your ceiling grid is any other dimension than mentioned above, contact your local Lightspeed Representative.

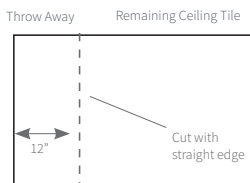


Figure 2:
Cut the 2' x 4' tile to create a 1' x 2' section and a 2' x 3' section.

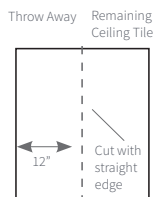


Figure 4:
Cut the 2' x 2' tile to create two 1' x 2' sections.

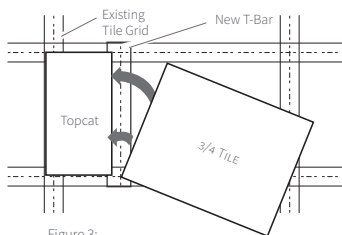


Figure 3:
Create a 1' x 2' opening and a 2' x 3' opening

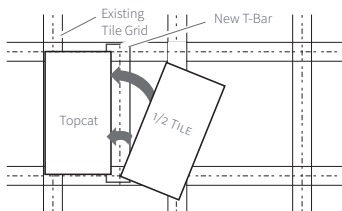


Figure 5:
Create two 1' x 2' openings

3b. SECURING THE TOPCAT (OUTSIDE U.S. & CANADA)

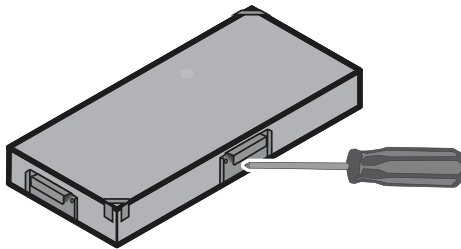
To comply with Building Codes, the Topcat MUST be secured with 2 safety wires and to the ceiling grid with four screws.

- a. Remove the spacer brackets from each of the four sides of the Topcat (Figure 1 below).
- b. Locate the 6m length of safety wire. The safety wire needs to be permanently attached to the solid building structure above.
- c. Cut the 6m safety wire in half, leaving two 3m pieces.
- d. Install anchors (or eye screws if necessary) into the building structure.
- e. Loop one end of the safety wire through the anchor (or eye screw), then twist it around itself at least five times (Figure 2, next page). Repeat for second anchor.
- f. Lift the Topcat up and lay it into the desired grid location (Figure 3, next page).

CAUTION: Ensure that the Topcat is stable on the grid rails. If not stable there could be a danger of it falling until safety wires are attached.

- g. Loop the other end of the safety wire through one of the tabs on the Topcat (located in opposite corners). Pull the wire through until it is taut and twist it around itself at least five times to secure the Topcat. Cut off any excess wire if needed. (Figure 4, next page)

Figure 1:
Remove Bracket



3b. SECURING THE TOPCAT (OUTSIDE U.S. & CANADA) CONT'D

Figure 2:
Loop the Safety
Wire Through Tab

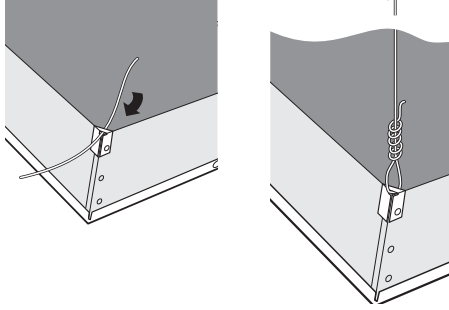


Figure 3:
Set Topcat in ceiling grid

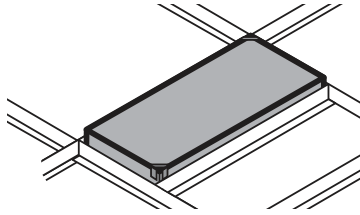
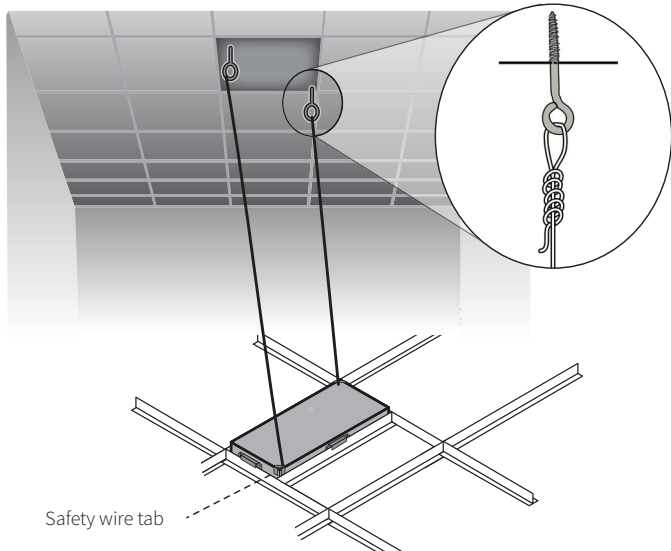


Figure 4:
Attaching the safety wire to the building structure



3b. SECURING THE TOPCAT (OUTSIDE U.S. & CANADA) CONT'D

- i. Locate the four (4) self-drilling sheet metal screws.
- j. Utilizing existing holes on the vertical section of the ceiling rail (center of the hole to the base of the rail must be a minimum of 15mm - (Figure 6), drill two screws on each .6m side of the Topcat (Figure 7). **NOTE:** Do not drill in the area designated with yellow tape.
- k. When hard wiring AC power to Topcat, electrical codes require for the Topcat to be permanently affixed to the ceiling rail.

NOTE: Drilling these screws into the designated areas of the Topcat chassis will not cause harm to the product. (Figure 7)

- l. Continue to step 4 in the manual, Installing and Wiring Electrical Power.

Figure 6: Drill Screws into the ceiling rail.

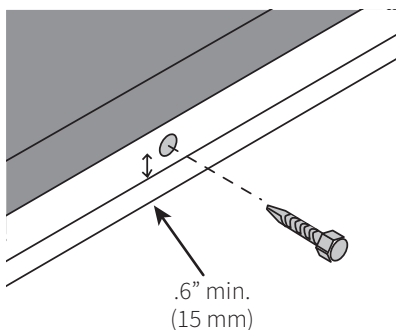
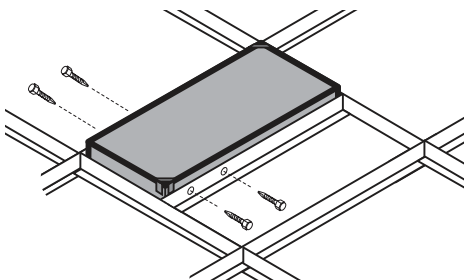


Figure 7: Drill screws through ceiling grid into designated areas of Topcat



4a. INSTALLING AND WIRING ELECTRICAL POWER

There are two methods of providing power for the Topcat.

1. New Construction Installations: connect directly to the building's AC mains.
2. Retrofit situations: wire to the building mains or order the optional extension cable (Part #DCPEX-NA in U.S. and Canada; DCPEX-INT outside U.S. and Canada).

SUPPLY POWER TO THE SELECTED LOCATION



WARNING! 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 Topcat chassis. 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.

When routing power to the Topcat, avoid interference with lighting and other noise possibilities.



CAUTION:

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Wire AC power to the Topcat as follows:

- a. Turn off the circuit at the main breaker. Attach the electrical wiring to the Topcat ceiling module as shown.
- b. Find the power conduit hole on the Topcat back can and remove the plastic plug. Insert the mains electrical wire through the hole (Figure 1).
- c. Find and open the front panel door on the Topcat by sliding the door toward the end of the Topcat to disengage the lock. (Figure 2) **NOTE:** Be careful not to damage speaker panel.

Figure 1

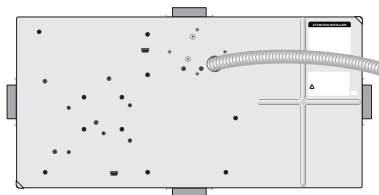
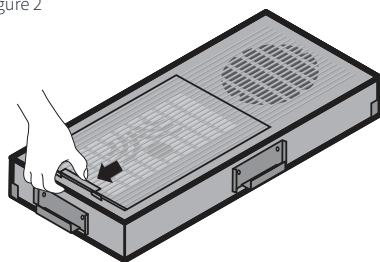


Figure 2



4a. INSTALLING AND WIRING ELECTRICAL POWER CONT'D

- d. Remove the lid to the internal electrical box by loosening the two screws and sliding the lid out. (Figure 2)
- e. Attach the ground wire to the grounding lug provided. Attach the remaining two wires to the terminal block screws as indicated. (Figure 3)
- f. Replace the cover on the internal electrical box and turn the electrical circuit back on at the main breaker.

Figure 2

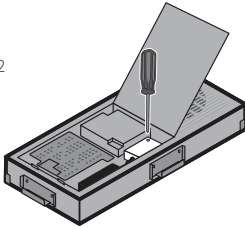
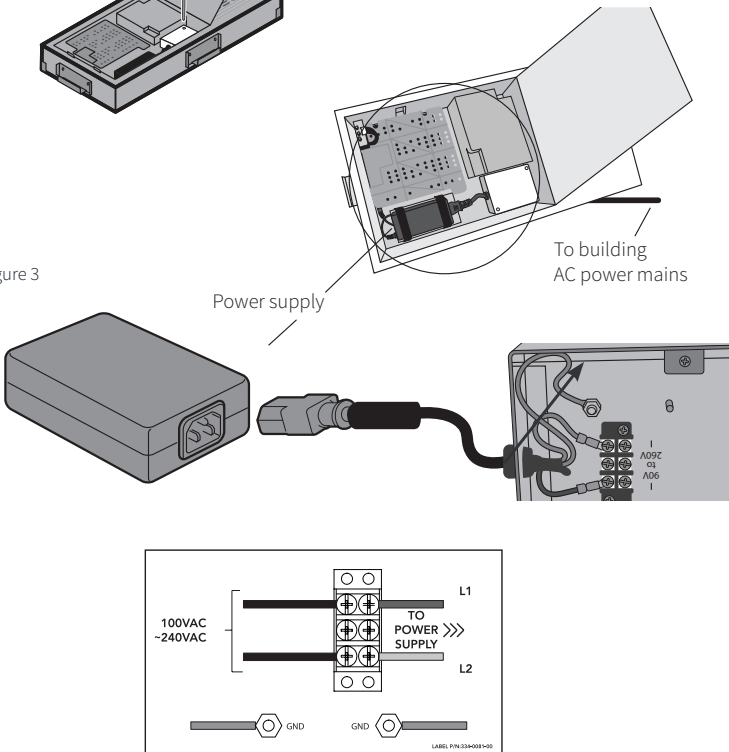


Figure 3



Note: When hard wiring AC power to Topcat, electrical codes require for the Topcat to be permanently affixed to the ceiling rail. Utilizing existing holes on the vertical section of the ceiling rail (center of the hole to the base of the rail must be a minimum of 15mm) drill two screw on each 2' side of the Topcat. Drilling these screws into the designated areas of the Topcat chassis will not cause harm to the product. (see Figure 4, page 11).

4b. ALTERNATE POWER (OPTIONAL)

When electrical AC power is not available above the ceiling for installation with the Topcat, there is an alternative method for supplying power to the Topcat.

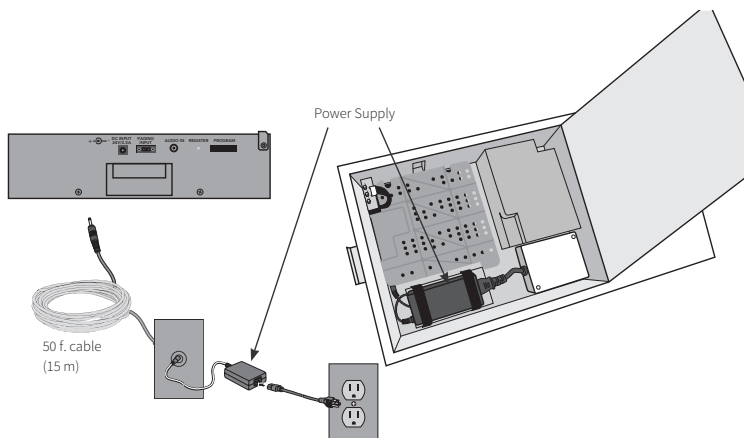
NOTE: there are two DC power connectors for connecting power to the Topcat. Both connectors perform the same function. Use the internal DC power connector located on the amplifier module when AC power is connected directly to the Topcat. Use the connector access located on the outside of the Topcat when using the optional DC extension cable.

1. Remove the factory installed 24V 2.5 amp power supply by unstrapping the velcro holding it in place. Disconnect the AC power plug and the DC output cable. Then restrap the velcro strips and enclose the AC plug with the velcro to keep it in place. This AC plug should not touch the flat panel speaker when the door is closed.

NOTE: The 24V power supply brick must be placed in the room below the suspended ceiling. Faceplates and electrical boxes should be provided by the installer as required.

2. Find the 50' DC extension cable and plug the female connector into the side port on the Topcat. Use the wire anchor supplied with the cable to secure the cable to the side of the Topcat chassis.
3. Route the DC extension cable across the ceiling and to the closest standard AC power outlet. Cable routing should follow all local electrical codes and installation procedures. (If the DC extension cable is to be run inside the wall, install a mud ring or electrical box in the wall close to the AC power outlet. If the DC extension cable is run on the surface of the wall using wire molding, then mount a surface mount electrical box to house the connection of the DC extension cable and the power supply.)
4. Plug the DC extension cable end of the 24V supply into the power extender cable.
5. Plug the AC power cord into the power supply and into the standard AC power outlet.

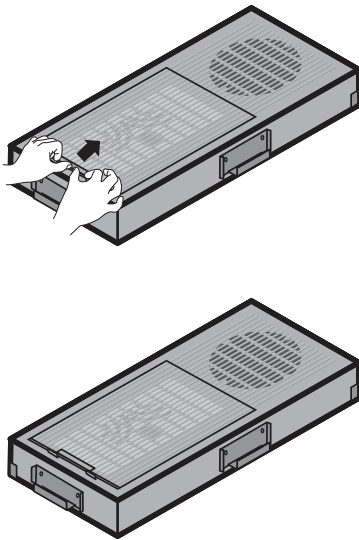
NOTE: the 50' DC extension cable is plenum rated, suitable for air handling spaces.



4. INSTALLING AND WIRING ELECTRICAL POWER CONT'D

When power is applied to the Topcat, it will automatically power on.

After wiring electrical power is complete, close door securely by applying pressure outward on the tabs located on the main body of the Topcat. Then slide the door toward the middle of the unit and lock into place.



4. Troubleshooting

3. Optional
Installation

2. Installation

1. Overview

5. SETUP AND OPERATION OF THE FLEXMIKE AND TOPCAT

NOTE: This procedure is easier with two people.

1. Ensure that the Topcat is powered on. The blue LED on the Topcat will glow.
2. Remove the Flexmike from the cradle charger. The Flexmike will automatically power on and mute when it is removed from the charger.
3. Slip the Flexmike with lanyard around the neck by connecting the magnetic clasps behind your neck. Adjust the lanyard so that the top of the microphone is at the collarbone.
4. Set the Flexmike volume to its midpoint. Push the up arrow button 7 times followed by pushing the down arrow button 3 times. The Flexmike is at its midpoint.

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.
5. Once initial volume level is set, walk around the room and listen for overall audio quality.
6. The teacher can now use the controls on the Flexmike to adjust the volume level from anywhere in the room.
8. Repeat step #6 for a second Flexmike, if purchased.
9. If a Sharemike was purchased, set the Flexmike volume to compliment the Sharemike as it does not have a volume control.



6. 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 Mic 1 or Mic 2 light will glow blue and the red light on the Flexmike power button indicates the battery pack is charging. The power button light will glow green to indicate that charging is complete and a full charge has been reached.

Replacement NiMH battery packs may only be purchased through Lightspeed Technologies (part # NH2.4V). 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).

1. Plug power cord into the cradle charger and then plug the AC end into an electrical outlet.
2. Place the Flexmike into the cradle. (Figure 1) The LED on the Flexmike power button will glow red indicating charging has started. The Mic 1 or Mic 2 light will glow blue. (Figure 2)
3. If Activate speaker pods were purchased with your Topcat system, the Flexmike will be charged in the Activate Charging Station. Please see the ACT User Manual for instruction.
4. Hang the Flexmike on the lanyard opposite the magnetic clasp.

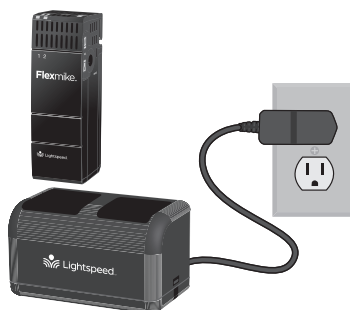
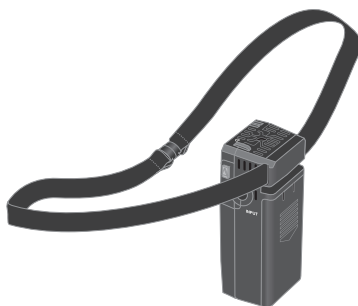


Figure 1



Figure 2



7. 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 during private conversations by momentarily pressing the power button. When muted, the blue light turns red.
- When the conversation is over, unmute the Flexmike by momentarily pressing the power button again. The red light will turn blue.
- Recharge microphone(s) each night. When recharged nightly, the microphone will last through a typical school day.

SECTION 3:

INSTALLATION AND SET UP INSTRUCTIONS FOR OPTIONAL EQUIPMENT

1. PAGEFIRST: INSTALLATION

The following components are included when the PageFirst option is purchased as an add-on: Please note that PageFirst is not compatible with telephone or IP-based paging systems.

- PageFirst sensor clip with wire pigtail (PFSC)
- 50' length of wire with connector
- 2 wire nuts

Step 1: Locate paging speaker and sensor clip

If possible, the paging sensor should be hung around the 8-ohm lead wires that are connected directly to the speaker. If it is a sealed ceiling speaker where only the 70-volt wire is accessible, connect to the exposed 70-volt wires.

- Locate the paging speaker in the classroom.
NOTE: PageFirst does not work with telephone intercom systems.

- Locate the PageFirst sensor clip. This clip is designed to hang around the wire connected to the paging speaker. Through induction, it detects the audio signal as it comes through the wire.

Step 2: Connecting the sensor to the speaker wire

- Gain access to the back of the speaker either up in the ceiling or on the wall. **NOTE:** there is no need to disconnect any wires.
- Unclip and open the top loop of the PageFirst sensor. Hang it around one of the lead wires connected to the paging speaker and clip it back together (Figure 1).

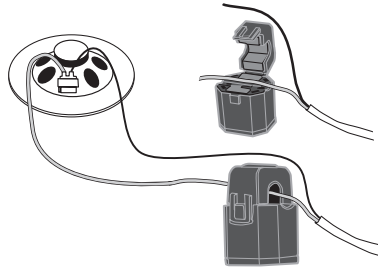
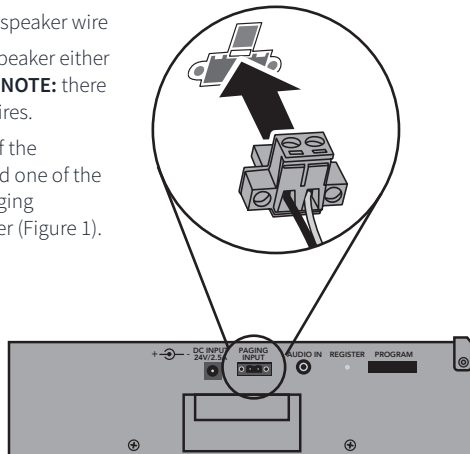


Figure 1: Hanging the Sensor Clip

Figure 2:
Connecting Pagefirst to Topcat



PAGEFIRST INSTALLATION CONT'D

Step 3: Connecting the PageFirst sensor to the Topcat

The sensor needs to be hard-wired back to the Topcat.

- Insert the euro-block connector of the wire into the PageFirst input jack on the Topcat. Secure with a screw driver by tightening the screw on the left and right sides of the terminals. (Figure 2, previous page.)
- Route the wire from the Topcat to the paging speaker. **NOTE:** when routing wire, make sure to secure the wire to the building structure, as electrical and building codes require.
- Connect the pigtail of the sensor clip to the length of wire, using the provided wire nuts. Coil and secure excess wire as needed. **NOTE:** wire can be cut and stripped to the appropriate length if necessary.

Step 4: Testing PageFirst

A page will need to be broadcast through the system to verify PageFirst is properly sensing the audio signal.

- Turn on the system and begin speaking.
- Broadcast a page through the central paging system.
- The Topcat should mute as the page is broadcast. When the broadcast is over, the Topcat should amplify the mic as normal.
- While walking around the room, continue talking into the microphone. Verify that the system is not muting during times there is no page being broadcast.

Step 5: Adjusting the Sensitivity

- Locate the sensitivity adjustment inside the Topcat. The sensitivity adjustment (labeled "ADJ") is pre-set to the 9 o'clock position. This should be the appropriate setting for the majority of installations.
- If the system does not mute while the page is being broadcast, turn the sensitivity adjustment up by turning the ADJ knob clockwise and test again.
- If the system mutes during times when a page is not being broadcast, turn the sensitivity down by turning the ADJ knob counterclockwise, and test again.
- If the system experiences dropout, turn the sensitivity down by turning the ADJ knob counterclockwise, and test again.

NOTE: The PageFirst function works via current induction. The above instructions represent the most common method to achieve sufficient induction. If sufficient induction is not achieved to trigger this function, please contact Lightspeed regarding alternate installation methods.

Take precautions as necessary to prevent and guard against electromagnetic and electrostatic noise interference. Unshielded and / or poorly shielded cable, multiple ground paths and improper grounding may all contribute to the production of a low frequency noise which could result in the PageFirst clip muting incorrectly.

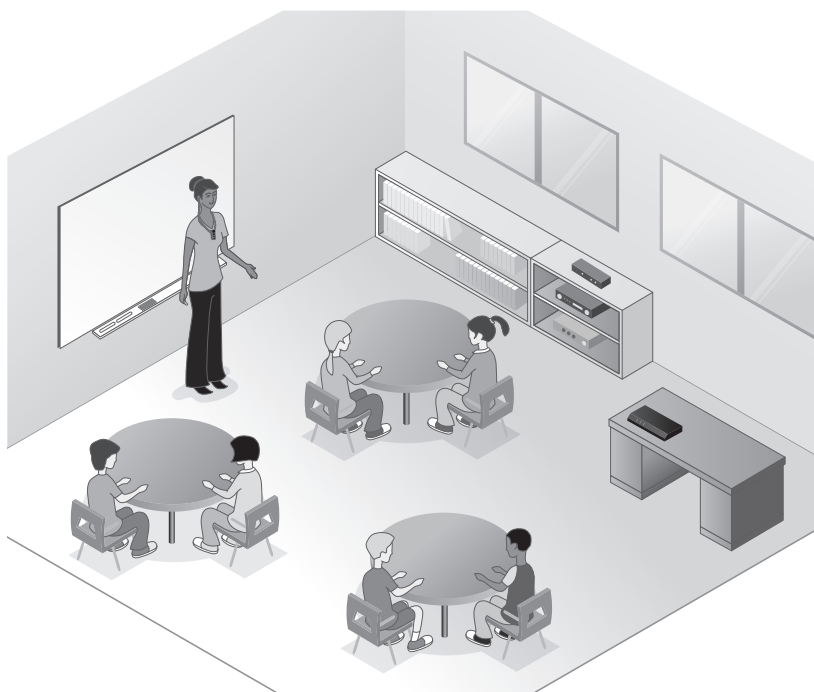
2. INITIAL SET-UP: ACTIVATE CHARGING STATION

Step 1: Determine set-up location.

The Activate Station charges the microphone(s) 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 highly accessible for both teachers and students. If plugging in multimedia audio sources, it should be located in close proximity to minimize cable runs.

Key considerations:

- Close proximity to AC power outlet
- Accessible for daily charging of all components
- Near multimedia audio sources if desired
- Do not place in a fully enclosed metal cabinet

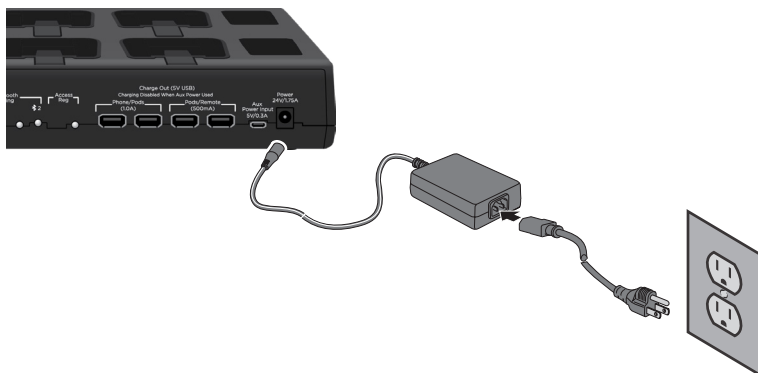


INITIAL SET-UP cont'd

Step 2: Plug in the Activate Station

1. Locate the 24V power supply and power cable.
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 blue power light on the front of Activate Station will glow.
6. The green link light will begin blinking as it searches for its paired classroom audio base station (Topcat).

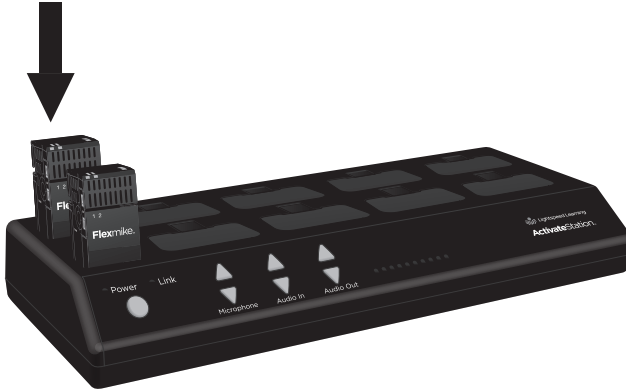
Note: If Activate System is being added to an existing Topcat, please refer to the Registration Procedure at www.lightspeed-tek.com/accessregistration for proper pairing instructions.



INITIAL SET-UP cont'd

Step 3: Place the Flexmikes in the Activate Station.

Prior to full operation, the microphones should be fully charged (at least 8 hours) to ensure optimum performance. In most cases, there should be enough battery life for initial setup and testing.



1. Insert the Flexmike(s) into the Activate Station.
2. The Flexmike(s) will power on and the charging light will turn red to indicate normal charging. When fully charged, it will turn green. The blue microphone 1 or 2 light will blink for several seconds as it establishes a link, then turn solid.
3. For systems with optional Sharemikes or handheld remotes, those can be plugged into the rear USB Pods/Remote charging ports. The charging light will turn red to indicate normal charging. When fully charged, it will turn green.

NOTE: If your Activate Station was purchased without Pods, the Pod charging ports have removable covers. If Pods are purchased in the future, the covers may be removed to enable Pod charging.

The components are registered and ready for operation when:

- Microphone(s) has a solid blue #1 or #2 light
- Activate Station has a solid green link light

Step 4: Volume adjustment for the Activate Station.

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

1. Connect the audio source(s) to the Activate Station using the 3.5mm cables provided.
2. Press the power button to power on the unit.
3. Set the audio source volume to provide sound through the Topcat.
4. Use the Activate Station Audio In volume control to increase or decrease the sound level.



NORMALIZING AUDIO SOURCE VOLUME LEVELS

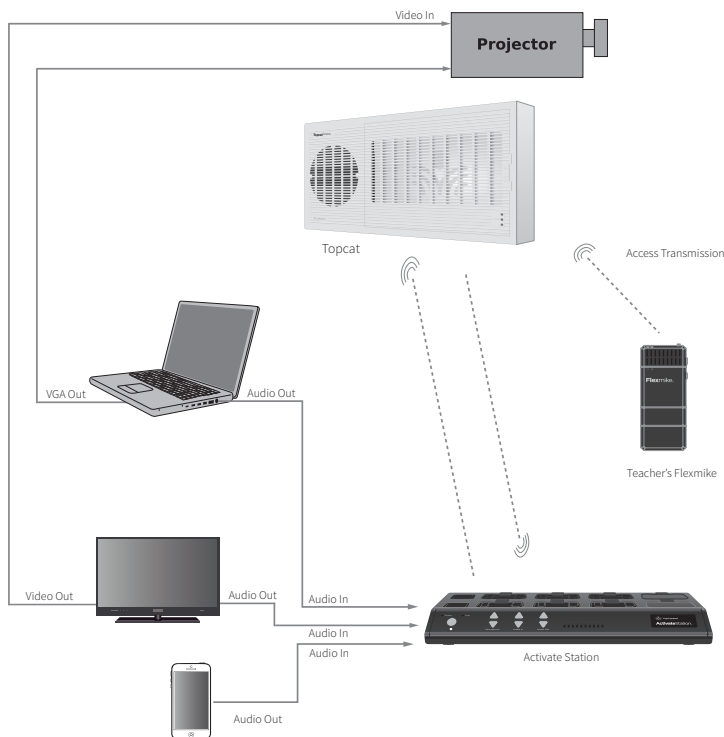
Use the Activate Station as the master audio volume control for the classroom. When two or more audio sources are connected, you will need to normalize volume settings by setting all connected audio sources to the same sound level while leaving the Activate Station Audio In volume control set to its center setting. The Activate Station 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 Activate Station using the 3.5mm cables provided.
2. Set the Audio In volume control on the Activate Station 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 Activate Station 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 Activate Station's Audio In volume can be used to increase or decrease the volume level for all audio sources as desired.

NOTE ON REGISTRATION: The Topcat and Activate Station are pre-registered together as a pair at the Lightspeed factory as required for proper operation. If paired Topcat and Activate Station are separated and swapped during the installation process, they must be re-registered. Please refer to the registration instructions at www.lightspeed-tek.com/accessregistration.

Step 5: Optional Audio Integration for Activate

The Activate Station is designed to integrate with the Topcat and multiple audio sources, allowing other instructional technologies to be clearly heard throughout the classroom.



Note on integration: If Activate Station is not included in installation, a 3.5mm audio cable may be connected from the audio source to the audio input on side of Topcat. Take precautions as necessary to prevent and guard against electromagnetic and electrostatic noise interference. Long cable runs, unshielded and / or poorly shielded cable, multiple ground paths and improper grounding may all contribute to the production of a low frequency hum. In most cases a ground loop isolator (not provided) placed in line will attenuate or possibly eliminate the hum.

4. Troubleshooting

3. Optional Installation

2. Installation

1. Overview

3. INITIAL SET-UP: MEDIA CONNECTOR

Step 1: Determine set-up location.

Choose a location for the Media Connector that is convenient to the classroom audio sources and power supply.

The Media Connector can be placed on a counter or wall mounted. Determine the best location for your room. Use the guidelines below when selecting the site.

Set it up in a convenient place near a power source that is highly accessible for both teachers and students. If plugging in multimedia audio sources, it should be located in close proximity to minimize cable runs.

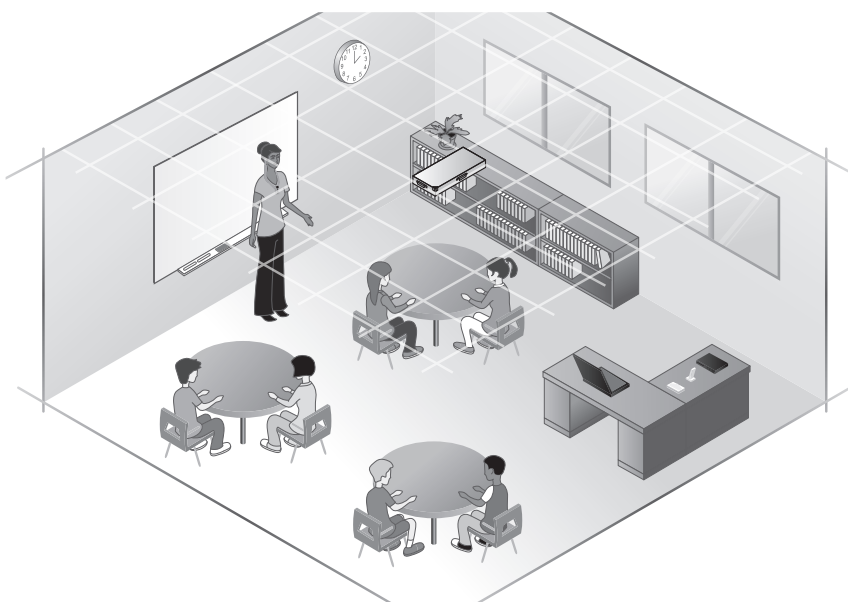
Key considerations:

- Close proximity to AC power outlet
- Accessible for daily charging of all components
- Near multimedia audio sources if desired
- Do not place in a fully enclosed metal cabinet

A. Counter or desktop

3-6 feet off of the floor to allow for good transmission.

- Not enclosed in a metal cabinet or otherwise obstructed.



B. Wall mounting

- Find a location on the wall that is near the computer or other AV equipment that will be connected to the Media Connector.
- Power for the Media Connector must be within 6 ft of this location.
 - Hold Media Connector up to the wall and ensure that it is level. Mark the mounting holes with a pencil. The back of the Media Connector that contains the inputs may be mounted in any position that is desirable.
 - For sheetrock walls, use screw-in sheetrock anchors and screws (not supplied) to secure the Media Connector to the wall. It is best to drill a 1/4" pilot hole at the two mounting locations before inserting the anchors.
 - Once the anchors are installed, place the Media Connector over the mounting anchors and insert screws through the mounting holes and into the anchor.
 - If walls are concrete or cinder block, appropriate mounting hardware should be purchased locally.

Step 2: Connect the power supply.

- Locate the USB port on the Media Connector.
- Connect the USB power cable into this port.
- Plug the USB1 power adaptor into an electrical outlet or into a computer USB port.
- Press and hold the power-on button located on the front of the Media Connector to power on and power off the unit.



Step 3: Volume adjustment for the MCA

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

1. Connect the audio source(s) to the Media Connector using the 3.5mm cables provided.
2. Press the power button to power on the unit.
3. Set the audio source volume to provide sound through the Topcat.
4. Use the Media Connector Audio In volume control to increase or decrease the sound level.



NORMALIZING AUDIO SOURCE VOLUME LEVELS

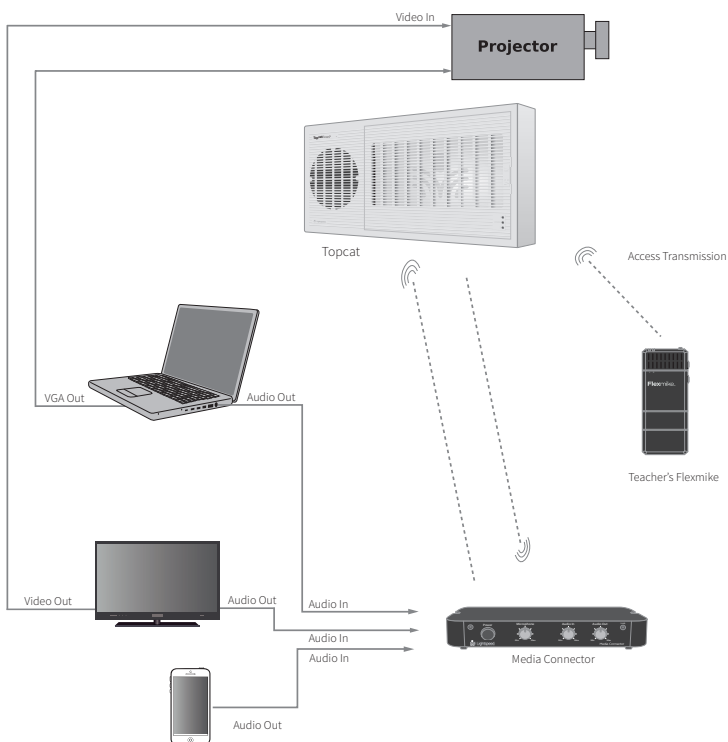
Use the Media Connector as the master audio volume control for the classroom. When two or more audio sources are connected, you will need to normalize volume settings by setting all connected audio sources to the same sound level while leaving the Media Connector Audio In volume control set to its center 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.

NOTE ON REGISTRATION: The Topcat and Media Connector are pre-registered together as a pair at the Lightspeed factory as required for proper operation. If paired Topcat and Media Connector are separated and swapped during the installation process, they must be re-registered. Please refer to the registration instructions at www.lightspeed-tek.com/accessregistration.

Step 4: Optional Media Connector Audio Integration

The Media Connector is designed to integrate multiple audio sources quickly and easily allowing other instructional technologies to be clearly heard throughout the classroom quickly and easily.



Note on integration: If Media Connector is not included in installation, a 3.5mm audio cable may be connected from the audio source to the audio input on side of Topcat. Take precautions as necessary to prevent and guard against electromagnetic and electrostatic noise interference. Long cable runs, unshielded and / or poorly shielded cable, multiple ground paths and improper grounding may all contribute to the production of a low frequency hum. In most cases a ground loop isolator (not provided) placed in line will attenuate or possibly eliminate the hum.

4. AUDIO INPUT CABLE: INSTALLATION

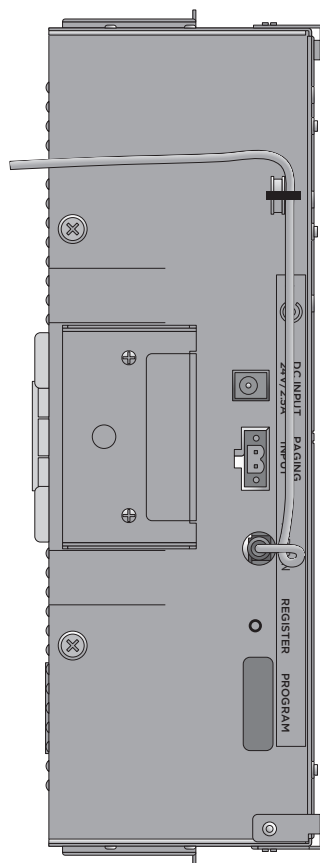
For use when the 3.5mm audio cable option is purchased as an add-on, or added at a later date.

In order to prevent the input audio jack or the 3.5mm plug to become damaged during above ceiling work, a auxiliary input protection bridge is provided to provide strain relief.

Step 1. Locate the protection bridge on the side of the Topcat.

Step 2. Plug the 3.5mm audio cable into the AUDIO IN jack on the side of the Topcat.

Step 3. Secure the audio cable to the protection bridge using a zip tie (not provided).



Note: Take precautions as necessary to prevent and guard against electromagnetic and electrostatic noise interference. Long cable runs, unshielded and / or poorly shielded cable, multiple ground paths and improper grounding may all contribute to the production of a low frequency hum. In most cases a ground loop isolator (not provided) placed in line will attenuate or possibly eliminate the hum.

TROUBLESHOOTING

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.

PROBLEM: Most Problems are related to low battery power.

SOLUTION: Battery Check

- Confirm batteries are charged each night. A blinking red light on the power button 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.
- Make sure the microphones obtain a full charge. A full charge takes 8-9 hours.
- When charging 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 doesn't 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 speaker and wireless components.

SOLUTION: Follow these steps to produce sound from amplifier.

- Confirm that the blue POWER light located on the front panel of the amplifier is on.
- Confirm the microphone is powered on and linked to the amplifier. The mic 1 status light will be green on the amplifier indicating the microphone is linked.
- Confirm that the microphone is turned on. There will be a solid blue light on the top of microphone to indicate it is powered on and ready.
- Confirm that microphone is not muted. A solid red light on the top of microphone will indicate it is muted.
- Make sure that the microphone volume level on the Activate Station or the Media Connector is not turned down all the way. Slowly turn up the volume level while talking into the microphone.

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



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