Access Systems
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 operable.
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.
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SYSTEM COMPONENTS AND UNPACKING

The standard configuration of the Access system will contain:

Option #1

![955 Access Receiver/Amplifier and Amplifier Power Supply]

Option #2

![Access Link Audio Hub and Cat 885 Amplifier]

Amplifier Power Supply
SYSTEM COMPONENTS AND UNPACKING CONT’D

Flexmike®
Classroom
Microphone

Flexmike Cradle Charger
& Power Supply

P5E2.0 Cable (for Option #2)
SYSTEM COMPONENTS AND UNPACKING CONT’D

Speakers

Systems can be configured with a variety of different speaker types, including the following:

TCQ (x 1)

DRQ (x 4)

WMQ (x 4)

4jCS (x 4)

(available in U.S. and Canada only)

(available in U.S. only)

TCQ (x 1)

DRQ (x 4)

WMQ (x 4)

4jCS (x 4)

(available in U.S. and Canada only)

(available in U.S. only)
### Standard Components (U.S. and Canada)

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<tr>
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<td>Wireless Audio Base Station (Option #1)</td>
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<tr>
<td>AL</td>
<td>Access Link Audio Hub (Option #2)</td>
</tr>
<tr>
<td>885</td>
<td>Audio amplifier/mixer (Option #2)</td>
</tr>
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<td>24V/2.5A power supply for U.S. and Canada</td>
</tr>
<tr>
<td>P5E2.0</td>
<td>2’ plenum-rated Cat5e cable (Option #2)</td>
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<tr>
<td>FM</td>
<td>Flexmike classroom transceiver with battery pack and lanyard</td>
</tr>
<tr>
<td>NH2.4V</td>
<td>AA NiMH rechargeable battery pack for Flexmike, one per Flexmike</td>
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<td>FL</td>
<td>Flexmike lavaliere cord</td>
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<td>FMCC</td>
<td>Transmitter cradle charger and power supply, U.S. and Canada</td>
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<td>FMCC power supply, U.S. and Canada</td>
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<td>SPEAKERS</td>
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### Standard Components (outside U.S. and Canada)

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<td>Audio amplifier/mixer (Option #2)</td>
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<td>24V/2.5A power supply, specify country</td>
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<td>2’ plenum-rated Cat5e cable (Option #2)</td>
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<td>Flexmike lavaliere cord</td>
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<td>SPEAKERS</td>
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### Optional Accessories

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<td>SM</td>
<td>Sharemike handheld tranceiver with battery pack</td>
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<td>NH2APK</td>
<td>AA NiMH rechargeable battery pack for Sharemike, one per Sharemike</td>
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<td>Charging cable for Sharemike</td>
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<td>MCA</td>
<td>Wireless Audio Hub, U.S. and Canada</td>
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<td>USB1</td>
<td>Power Adaptor for MCA, U.S. and Canada</td>
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<td>USB-MCB</td>
<td>USB type A-micro B power cable for MCA</td>
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</tr>
<tr>
<td>MSC3535</td>
<td>3.5mm to 3.5mm stereo audio cable</td>
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### Optional Accessories outside U.S. and Canada

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<td>ACT-1881-__</td>
<td>Activate charging station</td>
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<tr>
<td>SM-1881</td>
<td>Sharemike handheld tranceiver with battery pack</td>
</tr>
<tr>
<td>NH2APK</td>
<td>AA NiMH rechargeable battery pack for Sharemike, one per Sharemik</td>
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<tr>
<td>USBDC</td>
<td>Charging cable for Sharemike</td>
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<tr>
<td>MCA-1881</td>
<td>Wireless Audio Hub</td>
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<tr>
<td>USB3DC</td>
<td>Power Adaptor for MCA-1881</td>
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<tr>
<td>USB-MCB</td>
<td>USB type A-micro B power cable for MCA-1881</td>
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<tr>
<td>PFSC50</td>
<td>PageFirst sensor clip with wire</td>
</tr>
<tr>
<td>MSC3535</td>
<td>3.5mm to 3.5mm stereo audio cable</td>
</tr>
</tbody>
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*For further information on Activate for small group instruction, please visit www.lightspeed-tek.com

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**Media Connector with power adaptor and cable**

**Sharemike**

**ACT-6P (Activate and Speaker Pods)**
1. LOCATION OF THE AMPLIFIER

First, find a suitable location to set-up the amplifier. It is best to put the amplifier in a stable location near the other equipment to be used. It can be set in a cabinet, on a tabletop, or mounted on the wall. The 955 Access may be wall-mounted using the molded screw flanges; appropriate mounting hardware should be purchased locally. The Cat 885 may be located on a wall using the optional 800WB wall-mount bracket.

Avoid Separated Set-ups.
Components should be housed together. Wires should be routed back directly to the amplifier.
2. INSTALLATION OF AMPLIFIER WALL-MOUNT BRACKET 800WB

Wall-mount Set-up

The optional Lightspeed wall shelf (part #800WB) is specifically designed to support the Cat 885.

Installation Instructions:

Recommended tools: Screwdriver, hammer, pencil, level

1. Determine the location of the shelf:
   a. It should be located near a power outlet.
   b. Height should allow for easy access to front control panel, typically 4-5 feet from the floor.

2. Attach the two brackets to the shelf using the short screws provided.

3. Position shelf on the wall as it is shown in the illustration above.

Specifications:

Dimensions (D x W x H): 11" x 20.7" x 5.5"
Weight: 5.15 lbs
Load Capacity: 25 lbs
Designed for: Cat 885
2. INSTALLATION OF AMPLIFIER WALL-MOUNT BRACKET 800WB cont’d

1. Use level to determine that the shelf is straight.

2. The back of the shelf (the portion that is flush against the wall) has four mounting holes. Using a pencil, mark the location of the mounting holes onto the wall.

3. With the enclosed hardware, attach the shelf to the wall:
   a. Attaching to sheetrock or plaster walls:
      i. Gently screw the self-tapping anchors into the wall at the 4 marked points. If the wall is very hard material (i.e., plaster), it may be necessary to drill a pilot hole.
      ii. Holding the shelf up to the wall, tighten the screws into the anchors until the shelf is snug against the wall.
   b. Attaching to wood or into wall studs:
      i. Drill a small pilot hole at the 4 marked points.
      ii. Holding the shelf up to the wall, drill the screws directly into the wall until the shelf is snug.

4. Place the amplifier on the shelf, inserting the rubber feet on the bottom of the amplifier through the corresponding holes on the shelf.

5. There is room behind the amplifier to place the power supply and to thread the AC cord through the hole in the back.

6. The microphones should be set on the shelf to the side of the amplifier where they can be plugged in for charging. The rolled edge of the shelf will prevent them from sliding off.
SECTION 3:
CONNECTING POWER

1. CONNECTING THE POWER SUPPLY TO 955 ACCESS OR CAT 885

1. Ensure the power button is in the off position.
2. Connect the DC end of the power supply to the black power jack labeled DC POWER.
3. Connect the black AC power cable from the power supply to a wall outlet.

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![Diagram of 955 Access with DC Power Source Cable connected to a wall outlet.]

![Diagram of Cat 885 with DC Power Source Cable connected to a wall outlet.]

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REGISTER

AUDIO INPUTS

DC INPUT

24V/2.5A

PAGEFIRST INPUT SPEAKER OUTPUTS

+ + -

ADJ

1 2
2. ACCESS LINK CONNECTION TO CAT 885

When you are connecting Access Link into a Cat 885 amplifier, you can use Cat 5 cabling to integrate the two components (a 2’ cable is included with the system). This connection will send the audio from Access Link to the Cat 885 as well as provide power for the Access Link (no need for an additional AC power connection).

1. Plug one end of the Cat 5 cable into the AUDIO OUT/DC IN jack on the Access Link.
2. Plug the other end into the “SENSOR INPUT” jack on the back of the Cat 885.
3. Plug in the Cat 885 into AC power (if it’s not already) and the blue power light on the front of the Access Link will light.
4. Access Link audio levels can be controlled with the Microphone Volume control on Access Link as well as the CH A control on the Cat 885.
SECTION 4:

SPEAKER LOCATION & INSTALLATION

Tools and equipment that may be needed to install the speakers outlined in this manual:

- Straight edge
- Utility knife or drywall saw
- Screwdriver, standard & phillips
- Screwdriver, small jewelers type, 1/8" wide tip
- Drill driver and bits/drills
- Marker or pencil
- Wire cutters
- Wire strippers
- Wire ties

Locate the specific speaker(s) that were ordered with the system and then follow the installation instructions pertinent to that model of speaker outlined in this section of the manual.

TCQ MULTIMEDIA CEILING SPEAKER INSTALLATION INSTRUCTIONS

System Components and Unpacking

- (1) Ceiling grid T-bar (US & Canada use)
- (1) 50 ft (15m) plenum rated speaker wire (If ordered)
- (1) 20ft (6m) coil safety wire
- (4) Self drilling screws (outside U.S. and Canada)

NOTE: Wiring should follow the class 2 wiring methods as outlined in the National Electric Code.
1. SELECTING SPEAKER MOUNTING LOCATIONS

1. One TCQ speaker will distribute sound throughout a classroom of up to 1200 square feet (112 sq m). The location of the speaker is important to ensure even sound distribution. Ceiling height should be 9 - 12 ft (2.75m - 3.75m) in height.

   a. Identify the center of the classroom for optimum location (see figure 1).

   b. Select a ceiling tile that is free from fixtures (lighting, HVAC, etc.) within a 6ft (1.8m) radius nearest to the center point.

   c. Remove the selected ceiling tile for speaker installation.

2. TCQ SPEAKER INSTALLATION (U.S. & CANADA ONLY) For 2’ x 2’ or 2’ x 4’ Ceiling Grid

The dimensions of the TCQ are 1’ x 2’. It is designed to lie onto any standard suspended ceiling tile grid.

1. The ceiling tile will need to be cut to accommodate the TCQ.

2. Set the ceiling tile on a flat work surface with the patterned side facing down.

3. Using a straight edge, cut a 1’ x 2’ section from the ceiling tile, creating a 1’ x 2’ section and a 2’ x 3’ section (see figures 2 & 3), or two 1’ x 2’ sections (see figures 4 & 5).

4. Locate the 2’ ceiling grid t-bar attachment. Locate the attachment slots in the existing ceiling grid and snap the new t-bar into place to create a 1’ x 2’ and 2’ x 3’ sections (see figures 2 & 3), or two 1’ x 2’ sections (see figures 4 & 5).
2a. SECURING THE TCQ SPEAKER (U.S. & CANADA ONLY)

To comply with Building Codes, the TCQ MUST be secured to the building structure with 2 safety wires.

Installing Safety Wire:

1. Locate the 20ft length of safety wire. The safety wire needs to be permanently attached to the solid building structure with metal clips, tie point studs, concrete anchors or eye screws designed for the specific structure material. The specific anchors will need to be provided by the installer.

2. Cut the safety wire in half, leaving two 10ft pieces.

3. Install the appropriate anchor into the building structure. (figure 6)

4. Loop one end of the safety wire through the anchor (or eye screw), then twist it around itself at least five times. Repeat for the second anchor tie point.

5. Lift the TCQ up and lay it into the desired grid location.

Caution: Make sure the TCQ is stable on the grid rails with side brackets capturing the t-bar grid. If not stable, there could be a danger of it falling until safety wires are attached.

6. Loop the other end of the safety wire through one of the tabs on the TCQ (located in opposite corners). Pull the wire through until it is taut and twist it around itself at least five times to secure the TCQ and cut off any excess wire if needed.

7. Repeat with securing the second safety wire to the other tab.
8. Locate the four (4) self-drilling sheet metal screws.
9. 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 0.6” - see figure 8), drill two screws on each 2’ side of the TCQ (see figure 8). Drilling these screws into the designated areas of the TCQ chassis will not cause harm to the product. NOTE: Do not drill in the area designated with yellow tape as this could affect audio quality and void the warranty.

9. Find and open the front panel door on the TCQ by sliding the door toward the end of the TCQ to disengage the lock. (See figure 9)
10. Run speaker wire through back of speaker and into the terminal block area. Use appropriate conduit connector or cable bushing/grommet (not supplied) as needed for the 1/2” opening.
11. Attach the two wires to the terminal block screws as indicated. (See Figure 11) Spade lugs are provided that can be attached to the speaker wire, if desired.
12. Close speaker door securely by applying pressure outward on the main body of the TCQ. Then slide the door toward the middle of the unit and lock into place.
13. To continue with installation, go to Page 31 - Connecting Wire to Amplifier.

Figure 8: Drill screws into ceiling rail
Figure 9: Open front panel
Figure 10
Figure 11
Figure 12: Close front panel
3a. SECURING THE TCQ SPEAKER (OUTSIDE U.S. & CANADA ONLY)

To comply with Building Codes, the TCQ MUST be secured to the building structure with 2 safety wires.

The TCQ has spacer brackets mounted on each of the four sides. With these brackets installed, the TCQ will fit a standard 2’ x 2’ suspended ceiling grid. With the brackets removed, it will fit a 600mm x 600mm ceiling grid.

Remove the spacer brackets from each of the four sides of the TCQ. Replace the two screws into the woofer end of the speaker cabinet to ensure proper audio quality.

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

INSTALLING SAFETY WIRE:

1. Locate the 6m length of safety wire. The safety wire needs to be permanently attached to the solid building structure with metal clips, tie point studs, concrete anchors or eye screws designed for the specific structure material. The specific anchors will need to be provided by the installer.

2. Cut the safety wire in half, leaving two 3m pieces.

3. Install the appropriate anchor into the building structure. (see figure 13)

4. Loop one end of the safety wire through the anchor tie-point, then twist it around itself at least five times. Repeat for second anchor tie point.

5. Lift the TCQ up and lay it into the desired grid location. (see figure 13)

Caution: Make sure the TCQ is stable on the grid rails. If not stable, there could be a danger of it falling until safety wires are attached.
1. Loop the other end of the safety wire through one of the tabs on the TCQ (located in opposite corners). Pull the wire through until it is taut and twist it around itself at least five times to secure the TCQ and cut off any excess wire as needed. (see figure 14)
2. Repeat with securing the second safety wire to the other tab.
3. Locate the four (4) self-tapping sheet metal screws.
4. 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 - see figure 8), drill two screws on each 600mm side of the TCQ (see figure 15). Drilling these screws into the designated areas of the TCQ chassis will not cause harm to the product. (see figure 15). **NOTE:** Do not drill in the area designated with yellow tape as this could affect audio quality and void the warranty.
5. See page 31 for attaching speaker wire to TCQ.
DRQ CEILING SPEAKER INSTALLATION INSTRUCTIONS

Tools and Equipment

- Small flathead screwdriver
- Philips screwdriver
- Marker or pencil
- Drywall saw

Speaker Components

- (4) DRQ speakers
- (4) Tile bridges
- (2) 30 ft bundles of plenum-rated speaker wire (if ordered) marked with a white band
- (2) 50 ft bundles of plenum-rated speaker wire (if ordered) marked with a blue band

NOTE: Wiring should follow the class 2 wiring methods as outlined in the National Electric Code.

1. SELECTING SPEAKER MOUNTING LOCATIONS

A standard system includes 4 ceiling speakers for rooms up to 1600 sq ft (148sqm) with a ceiling height of 9-12 feet (2.75m - 3.75m). The location of the speakers is critical for even sound distribution.

1. Quarter the classroom into four equal quadrants. (see figure 1)
2. Select a ceiling tile that is centered in each quadrant.
3. Remove the selected ceiling tiles for speaker installation.

2. INSTALLING THE SPEAKERS INTO THE CEILING TILE

Before beginning the speaker tile work, choose a flat work surface.

1. Lay the tile bridge across the backside of the ceiling tile as shown in Figure 2. Using a marker or pencil, trace out the cutout circle as a template.
2. Using a drywall saw or jigsaw, cut out a circular hole as neatly as possible.
   NOTE: to ensure the hole is large enough, cut slightly outside the mark.
3. Remove the speaker grille by turning and pushing one of the arms upward (see figure 3). Or use the grille removal tool, insert one end into one of the holes near the edge and pull the grille off.
4. Turn the tile on its side and insert the speaker into the front side of the tile. Place the tile bridge around the backside of the speaker, oriented horizontally across the tile (as shown in Figure 2).

5. Use a screwdriver (or screwgun) to tighten the four mounting screws (see figure 4). NOTE: the first quarter turn pulls the mounting tabs away from the speaker enclosure, then it begins tightening.

6. Repeat steps 1-5 for each speaker and tile.

3. CONNECTING AND ROUTING SPEAKER WIRE

Prep two conductor 18 awg plenum rated speaker wire ends for insertion into the speaker connectors. NOTE: it is advised to prep and connect each speaker at ground level.

1. Distribute the appropriate lengths of wire to each speaker (see Figure 5). There should be (2) 30 ft lengths of wire between two pairs of speakers. There should be (2) 50 ft lengths of wire for home runs back to the amplifier.

2. At Speaker #1, remove the euro-block connector on the back of the speaker.

3. Connect one length of speaker wire to the -+ terminals marked as INPUT on the speaker, paying attention to polarity (BLACK is “-”, RED is “+”). Tighten the screw on bottom of the connector with small screwdriver to secure. This length of wire will be routed back to the amplifier.

4. Connect a second length of speaker wire to the second set of -+ terminals marked as OUTPUT on the speaker, paying attention to polarity. Tighten the screws to secure. This wire will be routed to Speaker #2.

5. Route the wire to Speaker #2. Secure and conceal wire as needed.

6. At Speaker #2, remove the euro-block connector.

7. Connect the wire to the input set of -+ connectors, paying attention to polarity and tighten the screws on top to secure.

NOTE: Building codes vary from state to state and county to county. It may be required that the speaker itself be secured to a support wire.
8. Repeat 2 through 7 to connect Speakers #3 and #4. Note that only two speakers can be wired together per amplifier output (minimum 4 ohm load).

9. Route the wires from Speaker #1 and #3 back to the amplifier as indicated in figure 5. Note that there must be a service loop of 8 to 10 ft at the speakers and the speaker wire cut to length at the amplifier.

10. Secure all speaker wire above the ceiling tiles with wire ties or wiring clips and use surface mounted raceway for any exposed wiring coming down the wall to the amplifier. This is required by code in most, if not all jurisdictions.

11. To continue with installation, go to Page 31 - Connecting Wire to Amplifier.

Figure 5: Wiring Diagram
WMQ WALL SPEAKER INSTALLATION INSTRUCTIONS

Tools and Equipment
- Small flathead screwdriver
- Drill with 3/16” (.1875mm) drill bit
- Phillips head screwdriver
- Marker or pencil

Speaker Components
- (4) WMQ speakers
- (4) Wall mount brackets
- (4) Sets of mounting hardware (screws and drywall anchors)
- (2) 50 ft bundles of plenum-rated speaker wire (if ordered) marked with a blue band
- (2) 75 ft bundles of plenum-rated speaker wire (if ordered) marked with a red band

NOTE: Wiring should follow the class 2 wiring methods as outlined in the National Electric Code.

1. SELECTING SPEAKER MOUNTING LOCATIONS

A standard system includes 4 wall speakers for rooms up to 1600 sq ft (148 sq m) with a ceiling height of 8-12 feet (2.4 - 3.75m). The location of the speakers is critical for even sound distribution.

1. Refer to Figure 1 for speaker positioning recommendations.
2. Ideally speakers should be staggered on all four walls (Optimum).
3. When all four walls are not available, refer to the other diagrams for alternative positioning.
4. Speakers should not be positioned directly opposite of one another.
5. When speakers are mounted, they should be tilted down toward the specific listening area indicated on the diagrams.
6. Depending on ceiling height, speakers should be placed 7.5 ft to 12 ft high (2.35 - 3.75m).
7. If the walls are drywall, drill pilot holes with a 3/16” (.1875mm) drill bit, then screw in the supplied drywall anchors.
8. While holding the bracket against the wall, drill the mounting screws into the drywall anchors (or directly into a stud).

9. Place the WMQ speaker between the two bracket arms, aligning the mounting holes.

10. Insert the large plastic mounting screws into the two sides of the speaker and tighten with your fingers.

11. Direct the speaker at the appropriate angle to cover the desired area of the classroom (see Figure 1).

Figure 2: Mounting the Speaker

Figure 3: Wiring Diagram

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Wall Bracket

WMQ Wall Speaker Wiring Diagram

Speaker #1

Speaker #2

Speaker #3

Speaker #4

Amplifier

50 ft.

75 ft.

75 ft.

50 ft.

In From Amp

Out to Speaker #2
2. CONNECTING AND ROUTING SPEAKER WIRE

Locate the plenum rated wire included with the speaker components (if ordered).

1. Distribute the appropriate lengths of wire to each speaker (see Figure 3). There should be (2) 50 ft lengths of wire between two pairs of speakers. There should be (2) 75 ft lengths of wire for home runs back to the amplifier.

2. At Speaker #1, remove the euro-block connector on the back of the speaker.

3. Connect one 75 ft length of speaker wire to the + - connector, paying attention to polarity (BLACK is “-”, RED is “+”). Tighten the screw on top of the connector with small screwdriver to secure. This length of wire will be routed back to the amplifier. Note that there must be a service loop of 8 to 10 ft at the speaker and the speaker wire cut to length at the amplifier.

4. Connect a 50 ft length of speaker wire to the second set of + - jacks on the connector (see figure 3) paying attention to polarity. Tighten the screws to secure and plug the connector back into the speaker. This wire will be routed to Speaker #2.

5. Route the wire to Speaker #2. Secure and conceal wire as needed.

6. At Speaker #2, remove the euro-block connector.

7. Connect the wires to the + - connectors on the input, paying attention to polarity. Tighten the screws on top to secure and plug back into the speaker.

8. Repeat 2 through 7 to connect Speakers #3 and #4.

9. A 75 ft length of wire will be routed back to the amplifier. Note that there must be a service loop of 8 to 10 ft at the speaker and the speaker wire cut to length at the amplifier.

10. To continue with installation, go to Page 31 - Connecting Wire to Amplifier.
4JCS CEILING SPEAKER INSTALLATION INSTRUCTIONS (Plenum Rated)

Tools and Equipment
- Straight edge
- Marker
- Scissors (template)
- Utility knife
- Screwdriver
- Plenum rated pass-through or conduit hardware (not included)

Speaker Components
- (4) Speaker/baffle assembly
- (4) Tile bridge
- (4) Speaker enclosure
- (16) Mounting screws
- (8) Wire nuts
- (2) 30 ft bundles of plenum-rated speaker wire (if ordered) marked with a white band
- (2) 50 ft bundles of plenum-rated speaker wire (if ordered) marked with a blue band

NOTE: Wiring should follow the class 2 wiring methods as outlined in the National Electric Code.

Figure 1: Exploded View
4JCS CEILING SPEAKER INSTALLATION INSTRUCTIONS (Plenum Rated) cont’d

1. SELECTING SPEAKER MOUNTING LOCATIONS

A standard system includes 4 ceiling speakers for rooms up to 1600 sq ft (148sqm) with a ceiling height of 9-12 feet (2.75m - 3.75m). The location of the speakers is critical for even sound distribution.

1. Quarter the classroom into four equal quadrants. (see figure 1)
2. Select a ceiling tile that is centered in each quadrant.
3. Remove the selected ceiling tiles for speaker installation.

2. INSTALLING THE SPEAKERS INTO THE CEILING TILE

Before beginning the speaker tile work, choose a flat work surface.

1. Using the straight edge, determine the center of each ceiling tile by drawing a straight line from corner to corner on the back of the tile.
2. Using the center point, mark a 10” circle on the back of the tile. NOTE: A circular template is included (see Figure 4a, 4b).
3. Using a utility knife or jigsaw, cut out the circular hole in the center of the tile as neatly as possible. The speaker baffle will cover up some minor rough edges. NOTE: To ensure the hole is large enough, cut slightly outside template lines (see figure 4c).
4. Remove the speaker grille by turning and pushing one of the arms upward.

Figure 2: Speaker Placement
5. Turn the tile on its side and insert the speaker into the front side of the tile and place the tile bridge horizontally across the back of the tile. Holding the speaker and tile bridge in place, start all four of the mounting screws. Use a screwdriver to tighten the four mounting screws to secure the speaker, tile bridge and tile together.

6. Repeat steps 1 through 4 for each of the remaining speakers and tiles.
3. CONNECTING AND ROUTING SPEAKER WIRE

Prep two conductor 18 awg plenum rated speaker wire ends for insertion into the speaker connectors. NOTE: it is advised to prep and connect each speaker at ground level.

1. Distribute the appropriate lengths of wire to each speaker (see Figure 5). There should be (2) 30 ft lengths of wire between two pairs of speakers. There should be (2) 50 ft lengths of wire for home runs back to the amplifier.

2. Start with speaker #1 (see Figure 4).

3. Remove a conduit knockout in the speaker enclosure and install a plenum-rated low voltage pass-through or conduit hardware in the enclosure (not included).

4. Route the speaker wire through the conduit hardware and attach to the speaker terminals by twisting the speaker wire and speaker pigtails together, securing with the included wire nuts. Be sure to maintain proper polarity (see Figure 5).

Figure 5: Wiring Diagram
5. Install the speaker enclosure on the tile bridge securing it in place by turning the enclosure clockwise (see Figure 6).

6. Install speaker #1 with tile into the ceiling grid and route cabling (following local building codes) to speaker #2.

**NOTE:** Building codes vary from state to state and county to county. It may be required that the speaker itself be secured to a support wire.

7. Remove a conduit knockout in speaker #2’s enclosure and install a plenum-rated low voltage pass-through or conduit hardware to the enclosure (not included).

8. Route speaker #1 wire and speaker #2 wire (50ft if ordered) through the conduit hardware and attach to the speaker terminals by twisting the speaker wire and speaker pigtails together, securing with the included wire nuts. Be sure to maintain proper polarity (see Figure 5).

9. Install the speaker enclosure on the tile bridge securing it in place by turning the enclosure clockwise (see Figure 6).

10. Install speaker #2 with tile into ceiling grid and route cabling (following local building codes) to the receiver/amplifier.

11. Repeat steps 3 through 10 for speakers #3 and #4.

12. To continue with installation, go to Page 31 - Connecting Wire to Amplifier.

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**Figure 6: Securing the Enclosure**
CONNECTING WIRE TO AMPLIFIER

955 Access (Figure 1)
1. Unplug the euro-block SPEAKER OUTPUT connector from the amplifier.
2. Insert the two wires into the connector, paying close attention to polarity (+ - + -).
3. Insert the red (+) wire and black (-) wire from speakers #1 and #2 into the right side of the connector (SPEAKER OUTPUT 2). Tighten the screw on top of the connector with small screwdriver to secure.
4. Repeat with the 2nd wire from speakers #3 and #4 into the middle of the connector (SPEAKER OUTPUT 1), paying attention to polarity.
5. Plug the euro-block connector back into the amplifier and secure using the two side screws.

Cat 885 (Figure 2)
1. The corresponding speaker volume is preset in the maximum position. If adjustment is necessary for balancing the room, it can be turned down.
2. As an optional wiring method, each speaker can be connected directly to the amplifier (home runs) so they can be zoned individually.
3. Up to 2 speakers can connect to each output, allowing for a maximum of 12 speakers.
4. Stereo Speaker Output:
   a. It is recommended that the system be left in mono to ensure all students in the classroom hear the same audio signal.
   b. If it is desired to amplify multimedia sources in stereo, move the selection switch to the right of the speaker outputs.
   c. This only impacts outputs 5 and 6, switching them to Left and Right.
   d. Voice will remain mono, only the devices connected to the audio inputs will be amplified in stereo.
   e. Any speakers connected to output #5 will produce the Left signal, and those connected to #6 produce the Right signal coming from the multimedia devices.

NOTE: Wiring should follow the class 2 wiring methods as outlined in the National Electric Code.
SECTION 5:

SET UP AND INTEGRATION

1. 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 Access system, the Flexmike will be charged in the Activate Charging Station. Please see the Activate User Manual for instruction.

4. Hang the Flexmike on the lanyard opposite the magnetic clasp.

NOTE: If Activate Station was purchased with the system, please refer to page 41 for charging instructions.

PLEASE NOTE: The Access components are registered, or 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-register.
2. OPERATING THE FLEXMIKE

Once the Flexmike is charged, follow these steps to set it up for use.

1. Remove the Flexmike from the cradle charger and put it on by connecting the magnetic clasps behind your neck. Adjust the lanyard so the top of the Flexmike is at the collarbone.
2. The Flexmike will automatically power on and mute when it is removed from the charger. This will automatically power on the 955 Access or Access Link as well.
3. The microphone volume on the Flexmike is set at the factory to the mid point.
4. While speaking in a normal voice, fine-tune the microphone volume on the front of the 955 Access or Access Link up or down. Proper volume level should be as follows:
   - Your voice should be clearly heard by another person on the other side of the room.
   - You should barely be able to hear your own voice.
   - There should not be any audio "feedback" or squealing outside of 2-3 feet (if there is, turn the volume down slightly).
5. Once initial volume level is set, walk around the room and listen for overall audio quality.
6. If further fine-tuning is required, you may need to adjust the Tone Control on the front of the 955 Access or Access Link.

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.
**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 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.

**NOTE:** If Activate Station was purchased with the system, please refer to page 41 for charging instructions.

**PLEASE NOTE:** The Access components are registered, or 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-register.

To assist in this, 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. SHAREMIKE: INITIAL SET-UP

1. Ensure the 955 Access or Access Link is on. The blue light on the front of the Access Link will glow.
2. Turn on the Sharemike by pressing and holding the power button until the LED lights.
3. Grip the barrel in the center section.
4. While speaking in a normal voice, increase the volume on the 955 Access or Access Link MICROPHONE VOLUME knob until your voice is barely audible.

REMEMBER: 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.

5. AUDIO INTEGRATION

The next step in setting up your system is to connect it to the other multimedia devices in your classroom. You may have a computer, television, DVD/VCR player, a visual projection system or other devices. Below are instructions on how to integrate TV/VCR, CD/DVD or computer directly into the amplifier.

1. Ensure the amplifier power is switched off and the AUDIO IN volume control is turned all the way down.
2. Connect the appropriate RCA or 3.5mm audio cable (not included) from the audio source into one of the input jacks on the rear panel of the amplifier.
3. With both the amplifier and the audio source power on, adjust the corresponding volume control on the amplifier until the desired level is achieved.

NOTE: If required, there is an additional audio input on the Access Link that can be used. The volume level can be adjusted using the AUDIO IN volume on the Access Link.
5a. AUDIO INTEGRATION possible setup

5b. AUDIO INTEGRATION possible setup cont’d
SECTION 6:

INSTALLATION INSTRUCTIONS FOR OPTIONAL EQUIPMENT

1. PAGEFIRST INSTALLATION

The following components are included when the PageFirst option is purchased as an add-on:

- PageFirst sensor clip with wire pigtail (PFSC)
- 50’ length of shielded plenum wire with connector*
- 2 wire nuts

1a. LOCATE PAGING SPEAKER AND SENSOR CLIP

If possible, the paging sensor should be hung around the 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.

1. Locate the paging speaker in the classroom. **NOTE:** PageFirst does not work with telephone or IP-based intercom systems.
2. Locate the PageFirst sensor clip. This clip is designed to hang around the wire connected to the paging speaker.

1b. CONNECTING SENSOR TO SPEAKER WIRE

1. 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.
2. 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).

*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.
1. PAGEFIRST INSTALLATION CONT’D

1c. CONNECT PAGEFIRST SENSOR TO AMPLIFIER

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

1. For 955 Access, insert the PageFirst wire into the left side of the six pin euro-block connector on the amplifier. Tighten the screws on top of the connector with a small screwdriver to secure the wire. Insert the connector into the back of the 955 Access and secure by tightening the screws on the left and right sides of the terminals. (Figure 2)

2. For Cat 885, insert the PageFirst wire into the euro-block connector on the back of the Cat 885. Tighten the screws on top of the connector with a small screwdriver to secure the wire. Secure the connector by tightening the screws on the left and right sides of the terminals. (Figure 2A)

3. Route the wire from the amplifier to the paging speaker. NOTE: when routing wire, make sure to secure to the building structure, as electrical and building codes require.

4. 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.

1d. TESTING PAGEFIRST

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

1. Turn on the system and begin speaking.
2. Broadcast a page through the central paging system.
3. The system should mute as the page is broadcast. When the broadcast is over, the system should amplify the mic as normal.
4. 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.

1e. ADJUSTING THE SENSITIVITY

1. 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.

2. 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.

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.
2. INITIAL SET-UP: OPTIONAL ACTIVATE CHARGING STATION

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
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 (955 Access or Access Link).

Note: If Activate System is being added to an existing Lightspeed audio system, please refer to the Registration Procedure at www.lightspeed-tek.com/accessregistration for proper pairing instructions.
INITIAL SET-UP cont’d

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 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, they can be charged by using the USB charging ports on the back of Activate Station. The charging light will turn red to indicate normal charging. When fully charged, it will turn green.

If your Activate System was purchased together with the 955 Access, all components were registered (paired) together at the factory.

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
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 classroom speaker.
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 955 Access or the Access Link 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.
5. Optional Activate Audio Integration

The Activate Station is designed to integrate with the 955 Access or Access Link and multiple audio sources, allowing other instructional technologies to be clearly heard throughout the classroom.

Note on integration: If the Activate Station is not included in installation, a 3.5mm audio cable may be connected from the audio source to the audio input on the back of the 955 Access or the Cat 885. 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.
3a. 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.
  1. 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.
  2. 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.
  3. Once the anchors are installed, place the Media Connector over the mounting anchors and insert the provided screws through the mounting holes and into the anchor.
  4. If walls are concrete or cinder block, appropriate mounting hardware should be purchased locally.

Step 2: Connect the power supply.

1. Locate the USB port on the Media Connector.
2. Connect the USB power cable into this port.
3. Plug the USB1 power adaptor into an electrical outlet or into a computer USB port.
4. 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 955.

4. Use the Media Connector Audio In volume control to increase or decrease the sound level.

**NOTE:** When Media Connector is powered on and registered to 955 Access or Access Link, it locks out Master Volume and Tone controls on the 955 Access or Access Link.

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 955 Access or Access Link and Media Connector are pre-registered together as a pair 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.
Step 4: Optional Media Connector Audio Integration

The Media Connector is designed to integrate with the 955 Access or Access Link and multiple audio sources, allowing other instructional technologies to be clearly heard throughout the classroom.

Note on integration: If the Media Connector is not included in installation, a 3.5mm audio cable may be connected from the audio source to the audio input on the back of the 955 Access or the Cat 885. 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.
SECTION 7:

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.


**TROUBLESHOOTING CONT’D**

- Confirm that microphone is not muted. A solid red light on the top of microphone will indicate it is muted.
- Check speaker connections on the amplifier. Make sure the cables are properly connected (see page 31 of this manual for more information).
- Check volume level of amplifier. Make sure that the microphone volume level on the 955 Access, Access Link or the Cat 885 Channel A is not turned down all the way. Slowly turn up the volume level while talking into the microphone.
- If an Activate Station or Media Connector is registered (paired) with the 955 Access or Access Link, make sure that the volume level of the Activate Station or 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.*

**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 with a student, parent, or other classroom visitor. You can tell the mic is muted when the light turns red.
- Recharge microphones each night. When recharged nightly, operating time (actual usage) for the microphones will last through a typical school day.
Dedicated to Access for all

We create instructional audio and video solutions that unlock student access to learning opportunities and give teachers meaningful insights into moment-by-moment learning.