

Inclusive Learning

Edmonton Regional Educational Consulting Services (ERECS)

Newton School, 5523 122 Avenue, Edmonton, AB T5W 1S3

Phone: (780) 472-4450 Fax: (780) 478-7037

CLASSROOM AUDIO DISTRIBUTION SYSTEMS

With the use of sound distribution systems in your school you have demonstrated a commitment to improved student listening and learning. However, your investment in classroom audio distribution systems is a basic first step. For students and teaching staff to truly benefit from this technology, it is essential that they have the knowledge to appropriately and most effectively use the equipment. We would prefer to have this technology be viewed as a sound distribution system rather than a sound amplification system.

Please note: Classroom Audio Distribution Systems (CADS) are intended for NORMAL hearing students or single sided deafness. Students with hearing loss and hearing aids require the use of PERSONAL FM systems to gain equal access to information presented in the classroom.

We have answered some commonly asked questions and the answers below for you. Questions commonly asked at some of our workshops regarding the CADS include:

1. ***“How loud should the system be? I feel as though I am shouting.”*** It is difficult to assess how loud your system should be. Our suggestion would be to ask a colleague into your classroom to listen while you teach. Your students must be present since room acoustics change when students are present. Your voice **should not** be loud and booming. It should **not** sound louder than a normal conversation, and equally loud in any place in the room. No one should have a headache at the end of the day. When setting the volume of the system, the individual speaking into the microphone should NOT be able to hear themselves amplified through the speaker(s). In fact, they often have to ask a colleague or their students if they are “on”. If you can hear yourself through the speaker then the volume is probably set too loud.
2. ***“Why do we have the boom microphones that go on our heads?”*** The boom provides students with the best sound quality. It allows you to move your head in a natural manner, and eliminates the need to increase the volume which results in squealing (feedback) occurring from the speaker. **BOOM MICROPHONES ARE NOT DESIGNED TO BE WORN AROUND THE NECK** - wearing them around the neck will result in sound quality issues that defeat the purpose of using these systems. See number 3.
3. ***“Our school has purchased an Infra Red (IR) system, do these work in the same way?”*** Yes. All of the above recommendations still apply. Please note that the FrontRow and Redcat IR systems utilize a different microphone array that allow the teacher’s voice to be picked up when appropriately worn. It is important to refer to manufactures instruction for the proper use of these products.
4. ***“How close should the microphone be to my mouth?”*** If the microphone is too close to the mouth popping sounds will occur during plosive speech sounds (e.g. /p/, /b/, etc.). This could hinder speech understanding, rather than improve speech understanding. If the volume control is set properly this should be the appropriate distance, however minor adjustments might to be made. Unless otherwise stated by the manufacturer The proper placement of the boom microphone is 2.4 – 4.0 centimeters from the speaker’s mouth. See chart at end of document for microphone placement images.

5. ***“When should I have it turned on?”*** Have the system turned on whenever there is a group listening task. Directions, reading, and some of those “teachable moments”, are all auditory experiences that students need to hear. If you forget to turn the system off, no damage is done. Many important lessons are learned through “overhearing”.

However, be sure to turn the unit to “off” or “mute” when you leave the classroom or are speaking to a student, parent, or other staff member. Remember to protect the privacy of yourself and others.





6. ***“We have had to replace the microphone already, why don’t they last?”*** The microphone is the weakest component of CADS technology. To protect them, be sure to wear the transmitter in the holder that was provided, an “apron” or fanny pack. Keep the transmitter secure so that does not fall. If for any reason you must disconnect the microphone unplug it at the connection to the transmitter. Do not pull or cut the wires.
7. ***What if something isn’t working, what do we do?”*** Be sure to contact the company that carries your particular brand of soundfield system. The following is a list of the majority of distributors that supply soundfield systems within Northern Alberta:

<i>Manufacturer Name</i>	<i>Distributor Name</i>	<i>Contact Name</i>	<i>Phone Number</i>
FrontRow	Genesis Communications, Ltd.(Ed.Public Schools approved vendor)	Jim Pshyk	780-455-3000
FrontRow	Evolution A/V (Ed. Catholic approved vendor)	Eric Shickle	780-451-4688
TOA	Alpha Net	John	780-413-0947
Simeon	Supportive Hearing Systems	Paul Toner	1-800-732-8804
Azden	Concept A/V	Christian	780-461-1177
Light Speed	Precision Media Group	Barry	780-436-4197

It is suggested that each school have a file on this equipment. Organize in the file what equipment is in which classroom; list the serial numbers and the frequency (channel) numbers.

8. ***“What is the life span of rechargeable batteries?”*** New rechargeable batteries are recommended for each new school year. As rechargeable batteries get old, they lose their ability to hold a charge. Check the recharging unit of your system to determine what **type** of rechargeable batteries you require. **Warning:** If the type of battery **does not** match the type of charger, the batteries may explode when charged, damaging the unit.
9. ***“Where can I get more research information about soundfield systems?”*** The Front Row website at www.gofrontrow.phonicear.com has an extensive on-line list of resources. There are also a number of websites, books and articles written on the subject. Please feel free to contact us for more resources if needed.

Note: It should be noted that Classroom sound distribution systems are intended to assist **NORMAL HEARING STUDENTS** gain access to auditory information; they are NOT intended to replace the personal FM systems recommended for students with hearing loss and hearing aids. For assistance with students with hearing aids and personal FM systems, please contact an Educational Audiologist.

Name Of Microphone	Type Of Microphone/Transmitter/Transponder
Boom	
Lapel	
Microboom	
Redcat Lanier Infrared Transponder	
Front Row IR Transponder	