

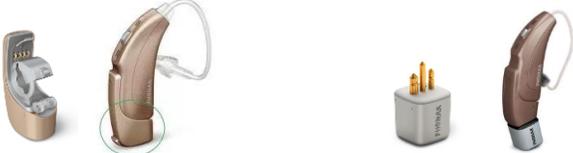
# Tech Talk

## Technology Considerations to Improve Access, Involvement, Outcomes



### Phonak Roger Touchscreen Personal DM System

Your student uses an *Phonak Roger Touchscreen* personal DM (digitally modulated) system to access auditory information in the classroom. The term DM system refers to what was previously known as a personal FM system. While FM/DM systems may have a different physical appearance, they all function in a very similar manner. The teacher wears a *microphone* and *transmitter* that sends their voice to *receivers* that ‘talk to’ the hearing aids/cochlear implants. Consistent and proper use of this technology is imperative.

<b>Phonak Personal DM Receivers</b>	
The part of the DM system, worn by the student, that ‘receives’ the teacher’s voice from the DM microphone and sends it to the hearing aids/cochlear implants.	
These style of receivers can be integrated with the students’ hearing aids or connect to the hearing aids via an audio shoe.	
This style of receiver ‘talks’ to the hearing aids/cochlear implants via an electromagnetic signal. The student wears this neck loop device around their neck, either inside or on top of clothing.	

<b>Phonak Touchscreen Transmitter &amp; Microphone</b>	
The part of the Touchscreen that the teacher wears to ‘transmit’ their voice to the student’s DM receiver(s). The three, small dots on the face of the Touchscreen are the microphone openings. Any time something touches or rubs against these openings, unwanted sound will be transmitted to your student’s brain.	

The placement of the Touchscreen will strongly impact how well your student accesses verbal instructions.

The Touchscreen must be worn unobstructed at the STERNUM LEVEL (no lower).

**Scarves and jewelry are discouraged**, as rubbing or clanking sounds will be transmitted directly to your student's brain.



### How do I use the Touchscreen DM system?

Each day a listener MUST ensure that the DM is working. This can be the student, teacher or other school personnel. This is done by performing either a [listening check](#) or [functional check](#) at the start of each day. Below are instructions for use:

	Turning On/Off	Muting	Charging/Batteries
	<p>The on/off switch, as well as an indicator light, are on the side of the transmitter.</p> 	<p>The mute button, with another indicator light are located on the bottom-front of the transmitter.</p> 	<p>The Touchscreen contains a rechargeable battery which requires nightly charging.</p> <p>Should the battery no longer stay charged for the duration of the school day it may require replacement, which needs to occur at the manufacturer.</p>
<b>How:</b>	<p>ON: Hold the power button down for 3 seconds.</p>  <p>OFF: Hold the power button until a pop up window appears on the screen. Follow directions.</p>	<p>A short push of the large microphone button</p>  <p>To unmute, repress the same button.</p>	<p>Connect the Touchscreen to a power outlet using the micro USB cable provided and power adapter.</p> 
<b>Display:</b>	<p>The LED screen will light up and the front indicator light will blink <b>green</b>.</p>	<p>When muted, the front indicator light will blink <b>red</b>.</p>	<p>Both front and side indicator lights will blink <b>green</b>.</p>

	The LED display can be put to sleep or woken up by press the on/off button.	An image of a muted microphone will briefly be displayed on the LED screen.	
<b>More Info:</b>	It is recommended that the DM system be turned ON at the start of the day and only turned OFF at the end of the school day. Use the MUTE function at all other times.	Remember to <b>unmute</b> your microphone when starting to speak.	Charge at the end of each school day, regardless of the the battery indicator.  Do NOT wait for the Touchscreen to die before charging!

### Microphone Modes:

There are multiple microphone modes than can enhance listening and learning: Lanyard, Small Group and Pointing. These modes can be programmed to switch automatically so that the teacher or student don't have to do anything.

Lanyard Mode	Small Group Mode	Pointing Mode
This is will likely be the most used mode, when the student is listening to a single talker for more than a couple of minutes (e.g. teacher) or during a transition activity.	Because listening to peers is one of the <b>most challenging</b> listening activities of the school day, your student can use this mode to listen in small-group situations comprising two to five students.	This mode can be used during brief communication opportunities or transition activities (e.g. student using the device as they walk from class to class).
Place lanyard around neck and use the length adjustment to move the top of the Roger Touchscreen TO THE STERNUM LEVEL.  Lanyard features safety breakaway for urgent removal.	Place the Roger Touchscreen, flat, in center of table.  The microphone is able to automatically capture the voice of the current talker.	Student holds Touchscreen in their hand and points the microphone in the direction of the talker that they want to hear (range: 4 m/13').  The microphone will capture the voice of the talker at whom it is being pointed.
		



## When should the DM system be used?

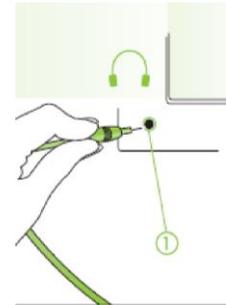
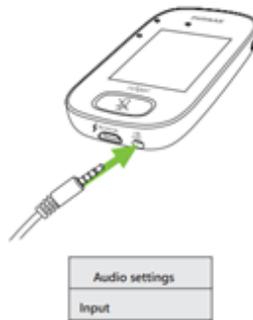
DM systems should be used any time that the student with hearing loss is listening to learn or communicate. This would include:

Teacher lectures	Substitute teachers	Announcements
Instructions/introductions	Guest speakers	Assemblies
Peer communication	Field trips	Etc.

## Use with Other Audio Sources:

The Touchscreen can also be plugged into a computer or any device that has a headphone symbol, for personal listening activities. You will need a 3.5-3.5 stereo audio cord (one comes with each Touchscreen). This will allow your student appropriate auditory access to activities such as computer-based teaching, listening centers, MP3 players, iPad, etc.

1. Plug one end of the 3.5 mm cable into the audio out (headphone) jack.
2. Plug other end into Roger Touchscreen 3.5 mm (audio) jack.
3. **Select Input.**



\* When the audio cord is plugged into the aux audio port, the microphone will be automatically muted so that your student only hears the audio from the intended source (e.g. computer). Be aware of this when communicating with your student. Unmute and use the microphone if necessary.

**Please note:** Integrating a student's Touchscreen transmitter with CLASSROOM AUDIO DISTRIBUTION technology (CADS) is ONLY recommended for auxiliary audio listening activities (e.g. SmartBoard activities).

*Students' Touchscreen transmitters should NOT be interfaced with the CADS during teacher instruction unless specified by an Educational Audiologist.*

DM systems can also be used during home activities (e.g. car, grocery store, family trips) or extracurricular activities (when coaches or teachers may need to communicate with the child from a distance).

For more information download the [Phonak Roger Touchscreen user guide](#) here.