

## COMFORT DIGISYSTEM MICROPHONE DM30

# Listening and talking with a single unit

By Anna K Lejon, December 2012

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### **Abstract:**

Children with hearing losses have a unique situation at school and the teaching environment particularly difficult. Developing ALDs for special schools poses a serious challenge. Can one solution fit all? The ALD should receive and transmit sound so that a child can use the ALD as a microphone to talk to the teacher and fellow pupils, and listen with the same device. Comfort Digisystem Microphone DM30 combines a receiver and transmitter that can be used both by the teacher and students.

## Hearing loss in school

Children with hearing losses have a unique situation at school and the teaching environment particularly difficult. The sound levels of a classroom can be loud and the demand for good communication is very high. To be able to follow and enjoy a lesson, children have to hear both the teacher and other pupils that require specific and individual conditions which can be provided by an assisted listening device (ALD). These conditions vary between children who are segregated and those who are integrated in normal schools. Developing ALDs for special schools poses a serious challenge.

## Compatible

Can one solution fit all? An ALD should be compatible with all brands of hearing aids, cochlea implants and bone anchored implants. Surprisingly, children of a similar age and hearing loss do not use one type of hearing aid as the cause of their loss can arise from different medical or physiological conditions. Is a single volume range satisfactory for every one? The impression of loudness is different for those with a hearing loss – as it is for everyone – whatever hearing aid or implant is used. The Comfort Digisystem Microphone DM30 of Comfort Audio incorporates a novel volume control that enables children to adjust the volume to suite their personal preference. The volume

control can also be locked for a chosen volume for younger children.

## Talk and listen

For almost a decade, Comfort Audio has benefited from worldwide cooperation with several special schools for the hard of hearing and deaf children. For a class of several children with a hearing loss, it is essential that all students can communicate with both teacher and each other. The ALD should receive and transmit sound so that a child can use the ALD as a microphone to talk to the teacher and fellow pupils, and listen with the same device. Comfort Digisystem Microphone DM30 combines a receiver and transmitter that can be used both by the teacher and students.

The DM30 is designed with a 'push-to-talk' function to switch the microphone on and is designed to allow only one pupil to speak at a time. This benefit reduces confusion and generates a quiet, calm classroom.

## Recharging over lunch? Not anymore!

Comfort Audio has upgraded the Microphone DM30 in recognition of increased power drain of a device that both transmits and receives. The new DM30 exhibits a battery life of around 10 hours, 50% greater than the earlier model, so you do not have to recharge the device during the day.

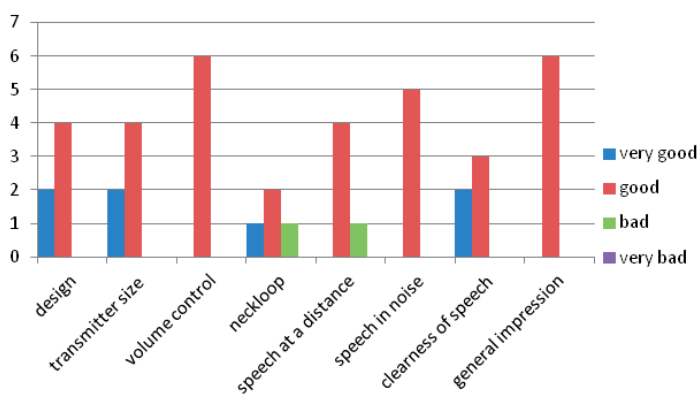
## School life is more than the classroom

Using the Microphone DM30, it is possible to communicate with pupils outside the classroom without the need for any further equipment. The DM30 is easily worn with a neckloop around the neck; it is no hassle to use it outside of school, whether bus journey or fieldtrip excursion. The DM30 allows freedom for teaching time outside of the classroom.

## Tested in real life

During the development of the new DM30, Comfort Audio tested the new version in "Kannebäckskolan", a school for the deaf and hard of hearing, in Gothenburg, Sweden. The students are familiar with Comfort Audio's assistive listening devices, but till now, the majority of the devices have been conference microphones.

A class of 6 students around 14 years old undertook the test. Five students had a hearing loss and one suffered from a language disorder. The students were asked to rate their immediate opinion of the design, size, volume control, neckloop, speech received from a distance, speech clarity and overall impression.



Test results of six teenage children with impaired hearing using Comfort Digisystem Microphone DM30.

The test was conducted over four weeks, after which students were interviewed regarding their experience with the DM30. Their teacher was also interviewed. The general impression of the students was that the sound quality was high and they liked the sound. They also liked the method of adjusting the volume. The impression from the teacher was that the students listened more to each other with DM30 than with the conference microphone, and that the students had more control over their own voices. Most importantly, the characteristic of the Comfort Digisystem Microphone DM30 that was rated best for both teachers and students was the decreased noise in the classroom and that everyone individually had time to speak.

Together with our own extensive experience and research, we believe that the test results confirm that the upgrade to our DM30 enhances learning in schools that cater for children who have hearing difficulties. It is of benefit in the classroom and, with its inherent mobility, widens the educational experience for all students using hearing aids or implants!