

LISTENING TO TV WITH A PERSONAL FM RADIO SYSTEM

When a hearing aid or cochlear implant wearer is required to listen to a teacher at some distance (more than 2-3 feet) the intelligibility of the speech deteriorates markedly as separation increases. This distance barrier can be largely overcome by the use of a personal FM system, also known as a radio aid, **provided it is set up and used correctly** (see the Ewing Foundation DVD "**Getting it Right**"). The teacher wears a radio transmitter whose microphone is positioned approximately a pencil-length from the mouth. The voice, having travelled only this short distance, is delivered to the child's hearing instrument(s) via a radio receiver, or receivers. In this way, the child hears the talker as if he or she were only a few inches away.

The FM system can also be of great assistance when the child is required to listen not to a live talker, but to TV/video or audio sources. Most educational TV programmes employ an unseen voiceover, rather than an in-vision talker, depriving the hearing-impaired child of the facility to lipread.

It may be possible to place the transmitter microphone in front of the TV set's loudspeaker, and this will help to an extent. However, the benefit is likely to be reduced by distortion and vibration. A direct electrical connection from the sound source to the radio transmitter will give much more satisfactory results.

Most video/DVD players and modern TV sets have at least one audio out socket, which in a domestic situation could be used to deliver the TV sound into a hi-fi system with its superior sound quality. This may comprise a pair of phono sockets, usually coloured red and white, or more commonly a SCART socket.



Phono sockets



SCART socket



If phono sockets are available, simply connect them to the "AUX IN" socket on the radio transmitter.. This requires a lead with a pair of phono plugs at one end and a 3.5mm stereo jack plug at the other. These are readily available and inexpensive. If the transmitter has the facility to mute the microphone, this will reduce noise considerably, but **remember to "un-mute" it when reverting to normal use.** The transmitter is then placed on a convenient surface. Although the mic itself may be muted, its lead also acts as the transmitting aerial, so must be allowed to hang freely if a useful transmitting range is to be maintained.

If only a SCART socket is available, a simple and inexpensive adaptor, as shown, will effectively convert the SCART socket into a pair of phonos (ignore the yellow socket, which carries the video signal). If it is the switchable type as illustrated, it must be switched to "OUTPUT". If it does not have a switch, it will probably be INPUT only, and will not be suitable for this purpose.



A useful by-product of this technique is that the hearing-impaired listener receives the sound at a constant level, **irrespective of the volume setting of the TV set.** This means there is no need to have the volume uncomfortably high when a hearing-impaired child is present.