Newsletter Spring 2008

Sound Systems UK
www.soundsystems.uk.com

The Art of Listening

Audio Frequency Induction Loop Systems:-

Despite the existence of induction loop systems in our buildings for many years and despite the new standard for AFILS; **BS-EN60118-4**, it is still common to encounter systems which offer no assistance to hearing aid users; in other words, **systems which do not work**

If you have an induction loop system for the assistance of the hard of hearing installed in your building how can you be sure that it is working ?

Certainly, we receive many calls from customers who are unsure or are receiving conflicting comments from users.

Thankfully, there are simple to use and cost effective headsets available which enable those with normal hearing to listen in to a 'loop system' and at least establish what a hearing aid user is hearing and we recommend that everyone should have one!

Measuring a System's Frequency Response

But this is only one small part of the issue!

BS-EN60118-4 The New Rules— Do You Comply?

The parameters which dictate whether an audio frequency induction loop system will work are rather more complex than at first may be apparent and the subject deserves careful consideration and respect.

We should all now be installing, testing and maintaining loops to BS-EN60118-4 and following it's introduction we can all anticipate even more satisfying levels of audio quality and intelligibility when using a hearing aid.

Some areas of consideration are:-

1. The level of background magnetic noise prevailing in a building should be measured before the installation is commenced; this is essential if the users are to experience any benefit from the system and have confidence in the installation.
2. The signal strength of the loop should be measured and set by volume of space not just area to include those standing as well as those seated.
3. The demand for power from the loop driver or amplifier is related to the shape, size and proportions of the loop and so it is insufficient to specify a loop driver on the area of the room alone. Sometimes more than one loop driver is required!
4. The quantity of metal in a building will change the effectiveness of the system.
5. Consider laying a test loop before installing one permanently, remembering that the shape is critical and accuracy is essential.
6. Measure and ensure the system has a smooth frequency response for good intelligibility and so as not to overload hearing aids or waste power.

.

BS-EN60118-4 and Induction Loops -continued

A Metal loss correction device

Common Problems That We Have Encountered and Addressed Are:-

1. The loop shorted to earth causing the system driver to fail and for there to be no output.

2. Excessive electro-magnetic background noise caused by unsatisfactory electrical installations and resulting in very poor intelligibility for hearing aid users.

3. Incorrectly specified, insufficiently powerful loop driver resulting in very weak signal strength and inconsistent audio coverage of the listening area.

4. Two loops installed in close proximity and interfering with each other or the loop simply installed in an incorrect location

5. Dead loop systems going un-serviced for years through insufficient attention paid to reports and complaints by hearing aid users.

6. Presence of high metal content in the building causing insufficient signal strength or preventing the system from working altogether; this should have been revealed at a pre-installation survey.

7. Loop installed at the incorrect height causing a variation of signal strength across the area of desired coverage..

Testimonial

St Catherine's Church Littleton is an ancient foundation having been rebuilt in the 14th Century. It is a small church of irregular shape with a gallery and a capacity of about 120, for services the church is usually full. We were in need of an unobtrusive high quality sound system and I was instructed by the PCC to organise the installation.

After careful research and recommendation we engaged Peter Kenny to do the work.

AMIS CS420 Loudspeaker at St. Catherine's

From the very beginning our relationship with him was highly pleasing. He came very promptly to make a full survey/diagnosis and quickly provided a detailed assessment of our needs and quotation for the recommended work.

The PCC had no hesitation in accepting Peter's quotation.

The work was carried out shortly after accepting the quotation and disruption and mess were minimal. We were especially pleased with the inconspicuous nature of the installation in that wiring and speakers were almost unnoticeable. Technically all went very well and the few teething problems, mainly associated with our existing radio microphones and loop system for hearing aids, were soon overcome with efficiency and tolerance.

Since the church is so small we frequently need additional accommodation in the shape of external marquees and Peter supplied and fitted an external speaker facility which is very effective and easy to set up.

The system has now been in operation for some eight months and we are entirely satisfied. Operation is relatively simple and can be carried out by non technical members of our congregation after minimal training.

Peter Kenny's work is to be thoroughly recommended.

Signed : Colin F.Fowkes, B.Sc. (Member of Littleton Parochial Church Council)

Our mission statement remains:-.

"To offer customers superior sound reinforcement of a quality beyond their expectations, for those customers to truly believe that they have received good value for their expenditure and for the experience of working with Sound Systems UK to be entirely pleasing"