



## FACILITIES FOR HEARING IMPAIRED PEOPLE IN PUBLIC PLACES

### INDUCTIVE LOOP SYSTEM QUESTIONNAIRE

We hope that you have found the 'Connevans introduction to room loop systems in public places' of general interest, however we suspect that you found the technical specifications 'heavy weather' (most people do!), but...

**'I want to install an inductive loop system for deaf people, what do I need and how much will it cost?'**

We do offer some standard loop amplifier kits in section 12 of the Connevans catalogue. Otherwise before we can give you a firm price there are quite a lot of questions that should be answered. In an ideal world we would have a site meeting and carry out a survey but, as that would be fairly expensive, lets see how far we can get by following through our 'DIY' questionnaire and site survey guide.

We need to start by getting you to answer a number of questions; some questions may not seem relevant to your getting a price for a loop system; however there are many poorly installed loop systems or ones which do not work properly – and working properly can be interpreted as 'fit for the purpose or use' which brings us back to our questions – sorry!

**Room loop proposal questionnaire** – Please fill in your answers either in the spaces provided or on a separate sheet if you prefer and return it with the room drawing by post to Connevans. We would rather not have faxed drawings as we find we usually can't read them – sorry.

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1) **Do you require a full installation service or are you interested in purchasing the equipment to install yourselves ?**  
*Connevans are able to offer an installation service within reasonable travelling distance of Reigate.*

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2) **What has motivated your enquiry to provide an inductive loop for hearing aid users ?**  
*This will help us understand your situation.*

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3) **Can you write down what you are seeking to achieve with an induction loop system ?**  
*This will allow us to ensure that you end up with a system to meet your needs – in some cases a portable radio aid might be more appropriate.*

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4) **What is the room used for ?** *Lectures, mother & toddler groups, seminars etc.?*

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5) **Who is going to use the loop system?** *The more users you expect to use the system the easier to justify more facilities and some users will require more rugged equipment !*



**6) Who will be responsible for looking after the loop system?**

*e.g. Turning it on, setting up the required number of microphones and checking that the system is working, Rather like getting a pet, a loop system needs to be looked after and you will get bad 'publicity' if hearing aid users turn up and find the loop not working.*

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**7) How large is the room to be looped ?** *The larger the room the more powerful the required loop amplifier.*

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**8) A scaled plan of the room is required which should also include power point positions, proposed microphone locations and your suggested installation position for the loop amplifier together with any suggestions you may have as to where we can run the loop wire.**

*Folding doors and multiple doorways in particular can cause installation problems, the loop wire is a single wire run around the room, probably at floor level perhaps clipped to the skirting board. Suspended ceilings can be used for putting loops in, however allowance for signal loss has to be made. The loop wire should not be fitted at the same level as a hearing aid is worn – i.e. not at waist or head height (sitting or standing).*

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**9) What is the general construction of the building ?** *Metal [such as that in reinforced concrete floors or tiered seating] absorbs the inductive loop signal energy so you may need a more powerful amplifier than usual.*

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**10) Is there a spare 13A socket within 1metre of where the equipment will be installed ?**

*Long power leads are a safety hazard, if a new power socket is required it will need to be fitted before the loop is installed – just in case there is a mains hum problem.*

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**11) Do you have a security problem which will mean that the loop amplifier and microphones will need to be locked away at night ?** *It is not too bad coping with sometimes moving microphones around, however it is usually not practical to keep replugging the loop wire and amplifier so you may need a lockable cupboard.*

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**12) Are there any other loops in adjacent rooms, or on floors above or below ?** *Loops generate a signal outside as well as inside the loop wire run, so it is not possible to have two loops in adjacent rooms. As a rule of thumb you should have at least one room of similar size between installations.*



**13) Is the induction loop to be used in conjunction with a sound reinforcement / public address system ?**

*One of the most important matters to get right with a loop installation is good sound collection. Microphones will pick up both wanted and unwanted sound. If you have a public address system already then we can simply connect into that. Of course, if you are thinking of having a sound reinforcement system perhaps we could quote for that too!*

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**14) Is the physical layout of the room always the same ? If not what are the variants ?**

*Where will the hearing aid users be sitting? Will they will be standing on occasions? Where will the person speaking be standing because they will need to wear a microphone. Sometimes it is necessary to have a number of microphone sockets fitted around the room.*

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**15) How many microphones do you need ? Do you normally have one person speaking or perhaps several in a panel ? Do you need to allow for questions from the floor ?**

**16) Would you be happy with microphones on long leads or do you want to use radio microphones ?**

*Radio microphones are more expensive but are easier to use. How the system will be used will decide which type would be most suitable – but please remember that the more expensive ones are more rugged!*

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**17) Will the use of the room include around the table group discussions ?**

*It is possible to have a boundary layer microphone. These work best when placed on a large flat surface such as a central conference table. They can also be ceiling mounted, but this can cause a problem if you move the discussion group around the room. Unfortunately whilst boundary layer microphones are very good at picking up the group discussion they are equally good at picking up the noise from overhead projectors, heating or cooling fans and humming fluorescent light fittings. As usual if two people talk at once the hearing aid users will be unable to discriminate between them so you need a good moderator to keep things under control!*

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**18) Do you want to take an audio feed from a television or other equipment ?**

*If the room has a television or video a direct connection will provide the best sound quality but of course you will need the connecting leads and the facility on the loop to plug into. If the hall is used by the local music club they may use their own sound system but hearing aid users like music too. With a little forethought it could be easy for them to plug in!*



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19) **Who is going to install the loop system?** *Physically installing the loop wire in an agreed route can be done by anyone with good practical skills. Connevans are happy to quote for the whole installation, supplying the equipment and commissioning the system for installations within easy travelling distance of Reigate or simply supplying the equipment with perhaps the hire of loop testing equipment.*

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20) **Do you want to include some loop listeners for hard of hearing non hearing aid users ?**

*You may have users who have a marginal hearing loss and do not wear a hearing aid. We are able to supply loop listeners (see page 5). They are actually loop testers but can also be used as a loop listener.*

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21) **Are there any potential problems with regards to confidentiality?** *Another hearing aid user sitting outside the room in the overspill area would be able to pick up the signal.*

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Please provide answers to all the questions above together with a scaled plan (as plans are usually copies we have been 'fooled' before, so we ask that the scaled plan has at least one measurement marked on it so we can check the scaling size) but please post your response to us rather than faxing for two reasons; firstly small detail is usually unreadable and secondly if you have done a good plan it will be too large anyhow! A lot of people nowadays do not have secretarial help so we are quite used to getting a hand written response.

Where do we go from here? Well assuming that we have not put you off the idea of having an inductive loop system and with your answers from the above questions we should be able to provide you with a quotation, although depending upon your answers on some occasions it may still be necessary to carry out a site survey.

### Site survey

We need to answer one simple technical question 'What is the level of background inductive noise in the room where you are proposing to have the loop installed?'. Someone needs to do a site survey; of course really this is worth checking while you are on site preparing your room drawing. Connevans offer a site survey service alternatively you can hire a magnetic field strength tester from Connevans allowing you to both measure with a meter the strength of background signal and listen to what it sounds like on a headset.

### Installation

Connevans now offer a full installation service, details are in the 'Connevans Guide to using and choosing Public Area Loop Amplifiers' alternatively contact customer services.



### Further information on hearing aid facilities

The 'T' position on a hearing aid picks up the varying magnetic signal from a wire looped around the room. Unfortunately, the 'T' position will also pick up magnetic signals from other equipment too. So it is important during a site survey to check the level of unwanted or background magnetic noise in a room when considering installing a loop. It is important to have all electrical equipment, such as lights, computers and electric heaters, turned on when checking for background magnetic noise.

"What is the 'T' position?" A hearing aid usually has a 3 position switch marked 'O', 'T' and 'M'. 'O' stands for Off, 'T' stands for Telecoil – that's the setting to use with an inductive loop and 'M' stands for Microphone – that's the normal user setting. With a well set up inductive room loop the user should be able to switch to 'T' and should get a good 'sound level' without changing their volume setting (much). So if in your proposed installation room a hearing aid user switches to 'T' and can hear hum or other noise before the loop is installed they will still hear it after installation too! The question is simply whether the level of 'background' noise is sufficient to annoy or would worry the hearing aid users? *Obviously this is quite an important matter, but it is difficult subjectively to make such a judgement.* There are published guidelines for acceptable signal levels and Connevans can hire you a magnetic field strength tester which will allow you to both measure with a meter the strength of background signal and listen to what it sounds like on a headset.

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### Food for thought

**Hearing aid users arriving at a venue where they are expecting to use an inductive loop have a justifiable expectation that the system should work adequately.**

The following are a list of the common problems with induction loop systems.

- 1 Volume too quiet.**  
*Possible reason – The loop amplifier was not powerful enough or is not set up properly.*
- 2 Not working.**  
*Possible reason – Nobody has checked the system before the meeting.*
- 3 Not turned on.**  
*Possible reason – Nobody is responsible for doing so.*
- 4 Not available because the microphone was locked away**  
*Not uncommon, simply caused by somebody being tidy!*
- 5 High level of background hum.**  
*Possible reason – Underfloor electric heating or old fluorescent lighting units. A loop system should never have been installed in the first place or the source of the hum cured.*
- 6 The loop system is very noisy; you can hear people coughing, the heating system seems noisy and in the summer with the windows open you can hear all the sound from outside too.**  
*Possible reason – A ceiling mounted boundary microphone has been fitted without proper consideration to the general room situation.*
- 7 Nobody knew that an inductive loop was available.**  
*Possible reason – No prominent sign on the wall indicating that a loop is fitted; also it is a good idea to add a question about intended inductive loop use on the room booking form.*
- 8 The loop signal can be heard around the edge of the room but reduces dramatically as you move towards the centre of the room.**  
*Possible reason – The loop wire has been fitted at skirting board level and the construction of the floor includes metal plates or steel reinforcement. The loop would have been better installed at picture rail level with a more powerful amplifier.*