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A to Z of Church Maintenance

Sound Systems

A CHECKLIST FOR BUYING A SOUND SYSTEM

The DAC considers a large number of applications each year for the installation or updating of sound systems in churches. The aim of these brief notes is to provide parishes with simple guidelines and 'food for thought'.

- First define the problem as clearly as possible.
 - a. If the church has managed for years, what has changed now? Is it changes in liturgy, or changes in expectation of a congregation used to the intimacy of television?
 - b. Is the problem experienced by all listeners, or confined to some complainants?
 - c. Is the problem in all parts of the building, or in an area such as side aisles?
 - d. What are we prevented from doing?

This would give some indication of whether the problem is a real one, and of a possible solution: altering speaking positions, investing in a small platform for the lectern or a course of elocution lessons, or the consideration of a sound reinforcement system.

- If a sound reinforcement system seems a sensible solution, think carefully about the liturgy. Once microphone points are installed, they define much of what can and cannot be done with ease; if the possibilities opened up by a sound system are only recognised once the system is installed, it may be too late to utilise its potential. The whole range of use needs to be listed, but some equipment (particularly microphone points) will serve several occasional uses; weddings, funerals, nativity plays, carol services and Holy Week meditations can all need different arrangements from regular Sunday services. A microphone at the sanctuary step for weddings could operate on a lead to the socket in an officiant's stall if the two are not needed simultaneously. Radio microphones have been used to enable mourners in the church to hear the words of committal in the churchyard.
- Itemise the requirements. This is not a 'specification' as such, and requirements can be discussed when the church is visited for estimation, but the fullest possible details of the requirements (rather than the

equipment to do the job) help to produce comparable quotes. Within limits, separate costings can be requested for various options, such as an induction loop or a feed to a crèche in a vestry.

A check-list for a typical church might look something like this:

Our sound reinforcement system should:

Provide speech intelligibility to

- main nave
- north aisle seating
- choir stalls
- and depending on cost, feed to side chapel for large services

from speakers at:

- altar (celebrant to the east, facing west) - unobtrusive microphone
- lectern
- north and south sanctuary priests' stalls
- pulpit
- centre sanctuary for weddings
- depending on cost and feasibility (radio microphone?):
 - font
 - nave for intercessions.

Levels to be controllable by sidesperson near south door.

Equipment securable when not in use (can installer provide cabinet, and at what cost?).

Estimate for induction loop.

No requirement to play music; socket available for connection of cassette recorder.

- The choice of firms for obtaining estimates is largely a matter of circumstances. The best recommendation is a satisfactory installation in another church; your DAC will provide names of those who have done good work in the past or the deanery grapevine can make suggestions. Estimates could be obtained from the area specialist of one of the national firms, from a more local firm, and from one other - perhaps one advertising in the religious press as experienced in church installations.

Conversation with the representative of the firm who draws up the estimate can reveal much of the firm's experience of and sympathy with work in churches, and it is often the case that the 'man who does churches' is a practising Christian; however, sadly, it should not be assumed that firms which actively trade on the strength of their Christian commitment are necessarily competent in sound reinforcement. Make sure that the firm has a good after sales service plan. How long is the

equipment guaranteed for? Will there be a call out charge, if so how much? How far will an engineer/contractor have to travel? Would they be willing/able to visit at a weekend (especially Saturday afternoon/evening!).

- Some firms are willing to demonstrate the equipment which is offered, if the estimate is of interest, and this is often a deciding factor; it can be expected that the fully installed and optimised system will operate somewhat better than a temporary demonstration rig.
- The final choice of estimate not only depends on the price and any demonstration, and the appearance of the loudspeakers and microphones offered, but also on the details of facilities offered and frequently on what 'feels' right. This is not necessarily as irrational as it seems; in practice an unsuitable system is usually obvious, and any suitable system is a reasonable choice. The only difficulty - but a common one - arises when too little thought has been given to setting out the requirements, and the estimates are not comparable.
- Any sound enhancement system has to be functional but equally consideration should be given to the aesthetic impact on the church building. The most suitable speaker might be obtrusive and spoil the sight line. Speaker cases come in different materials and can be painted to match walls, stonework etc. A sound system will inevitably have an effect on the appearance of the church but careful consideration can keep this to a minimum and prevent any unnecessary invasion on the beauty of the church.
- The location of any controls requires some thought. Some firms claim that 'fiddling about' during a service is unnecessary. Experience tends to prove otherwise. The person responsible for any alterations should be in a position to hear what is happening. Placing the control box in the vestry may be more secure but impractical if two people are needed to signal "louder" or "softer"! The degree of security required will obviously depend on the individual area but electronic equipment is attractive to thieves.
- The trials and tribulations of having a sound system installed are no different from those of having any major work done. Once installed, it then has to be introduced into use. Obviously, vergers, servers or whoever prepares the church must know how to connect microphones and then switch on the amplifier (connecting microphones after switching on is likely to cause nasty noises), and speakers and an operator must know how to use microphones and control the volume level. The reaction of the congregation is usually as varied and vociferous as for any innovation, and as short lived. This is the point at which doubts arise, but a few more weeks prove that it really has all been worth while.

- Obviously the cost of any installation depends on the complexity of the system. Induction loops are usually zero rated for VAT under group 14 of the zero rated schedule. The introduction of a new sound system into a listed building may be zero rated. Referral to the local VAT office (under Customs and Excise in the telephone directory) is advisable.

Further Sources of Help

- Your DAC Secretary - a list of DAC Secretaries can be found here
- The Council for the Care of Churches book *Sound Amplification in Churches* provides more detail on this subject.

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