



SOUND REINFORCEMENT

A GUIDE TO SOUND
REINFORCEMENT IN
CHURCHES

THE ROLE OF THE DAC

The DAC is an advisory body. Where a PCC submits a List B application for the Archdeacon's permission, or submits a petition for the grant of a faculty by the Chancellor, the DAC will refer to the appropriate policy document when advising the relevant parties. The DAC's intention is that such policies will make it clear to parishes what is likely to gain the committee's immediate support.

Where a PCC submits an application which is not in line with the DAC's policy, the PCC will need to explain why that deviation is necessary, so that the Archdeacon or Chancellor (as appropriate) can consider this when reaching their decision.

INTRODUCTION

Many church buildings have lovely acoustics, making them popular venues for community events and concerts as well as for worship. However, there is no 'one size fits all' solution to sound reinforcement as every building has its own unique characteristics. A sound system will comprise one or more microphones positioned to capture sound (speech or music), and an amplifier and loudspeakers to broadcast that sound to the congregation or audience. Correctly installed, a sound system will minimise echo so that the sound can be heard clearly throughout the building.

PROCESS

Before you invite a contractor to visit your church and design a scheme for you, consider the following:

- What do you need a sound reinforcement system to do for you? The system required to amplify one person speaking (preaching, reading the lesson, leading intercessions) in a small church will be quite different to the system required for multiple voices or instruments (music recitals, concerts, choirs, dramatic productions) in a large church. Will you want to be able to replay pre-recorded music from a CD player or a laptop computer?
- If you are replacing or upgrading an existing system, be clear about what is deficient or wrong with it. In what way will the new system be an improvement on the current one?
- Listen to the result of sound reinforcement schemes in other churches, and talk to members of their congregations and clergy about the effectiveness of their schemes. But be aware that the interior volume of your church and the materials from which it is constructed will have a critical effect on the final sound, and that what works for another church may not work for yours.
- Talk to your church architect, who may well be familiar with systems installed in other churches and be able to recommend suitable contractors.
- What experience does your contractor have of church systems? Are they aware of the particular sensitivities and challenges of this kind of work?
- Does your contractor offer a trial period? Some will allow a period of time within which the system installed can be adjusted or fine-tuned, and they may even visit a church service to check with you how the system is performing before you commit to its purchase.

If you are simply adapting an existing sound reinforcement system, then this is covered by List A – item A1(20) – and the work will not need any consultation or permission. However, any work to an electrical installation must be carried out by a person whose work is subject to an accredited certification scheme (at present NICEIC, NAPIT or ECA to full competence) and if your church is a listed building, the work cannot include any alteration made to existing fixings or cable runs (but see 1.3 below).

1.3

If you are installing a sound reinforcement system or loop system (including a control desk) or you are altering an existing system, then this is covered by List B – item B1(13) – and the work will need your Archdeacon's written approval.

1.4

When a List B application is submitted it should be supported by:

- A plan of the church showing proposed equipment positions (cabinet, loudspeakers, microphones) and either an elevation or a section of the church, with the scale marked on it, to enable the DAC to comprehend the volume of your building;
- Photographs of the interior space;
- The contractor's quotation and full technical details of the system to be installed - the amplifier, the frequency response and polar patterns of the microphones and loudspeakers;
- Catalogue illustrations of equipment are helpful;
- Details of how the equipment is to be mounted, and the colour and route of all cabling and how it is to be fixed; (can your loudspeakers be painted to match the colour of the surface upon which they will be mounted?);
- What is the route of your induction loop cable? This can be marked on the plan;
- Confirmation from your church architect/surveyor that s/he has been consulted about and is content with the proposals, particularly if cable runs or the position of loudspeakers will impact on any architectural features;

Please remember that the DAC has an Acoustics Adviser who will be happy to give advice about the most sensitive ways to use sound reinforcement in relation to your building and style of liturgy. If your building is unusually large and complex, or if there are specially challenging circumstances, it may be possible for the Adviser to make a site visit (but such site visits are not routinely made).

EQUAL ACCESS

If you are not planning to include an induction loop in your sound reinforcement system, you should be aware that the Equality Act, which came into force in 2010, makes the inclusion of a loop strongly advisable. Your contractor must state that any loop you intend to install (not just the loop amplifier) meets the appropriate British Standard. The purchase of a hand-held loop receiver is advised, as it can be used by someone with poor hearing but no hearing aid, and can be used by the church to check that the loop is functioning.

OTHER GUIDANCE AND RESOURCES

The Church of England website:

<https://www.churchofengland.org/resources/churchcare/advice-and-guidance-church-buildings/audio-visual-and-electrical-wiring>

<https://www.churchofengland.org/resources/digital-labs/blogs/getting-sound-your-recording-or-live-stream>

<https://www.churchofengland.org/resources/digital-labs/blogs/guide-setting-equipment-your-church-building>

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