

Care of the Organ

by John Harper

This information sheet is intended for those who do not know much about organs. It is written in non-technical language that, we hope, will make it possible for clergy, church council members, and church members to weigh up the issues.

A pipe organ may be the most expensive single artefact in the church, after the building itself. Most clergy, parish church councils and organists will be faced with the question of ‘What needs to be done to the organ?’ on an annual basis (for care, routine maintenance and tuning), and every 15 or 20 years when more substantial work may be necessary. In the main, no one pipe organ is the same as another. That makes the drafting of general guidelines and advice more difficult.

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1. Brief outline of the way a pipe organ works, addressing its main components
2. Large projects involving major work and expenditure on the organ
3. Normal care and maintenance - this is intended to help your church to take sensible steps to ensure that the organ works effectively for as long as possible with as little expense as possible
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1. Basic principles of the pipe organ

Organs have pipes that sound when keys depressed by the player allow wind to enter them. In practice there are five main parts of an organ:

- wind (blower, wind storage, wind trunks supplying air to pipes)
- keyboard and keyboard action (linking keys to pipes to make them sound)
- stops and stop action (controlling range of sounds heard)
- pipes and windchest (on which the pipes stand, and in which are the final valves and mechanism to control which pipes sound when)
- case (which may be separate or integral to the construction of the organ)

Action

According to the age, design and size of the organ the kinds of mechanisms may vary, as may their life-span (and cost).

Organs with mechanical levers for key action and stop action were the most commonly built until about 1850, and many organ builders making new instruments prefer this method. Properly made, this action ought to last for at least 75 years of normal use, and many have lasted over 200 years.

From about 1850 to 1950 many organs used wind to operate both key and stop action (so-called pneumatic action). This action relies on large numbers of small valves to operate the action, and needs regular overhaul about every 25 years.

Electric action became more common in the 1950s, but the technology has moved on rapidly (and continues to do so), using fewer cables and more printed circuits and computer processors. However, keyboard, stop and pipe all require some mechanical movement. Most early electric actions have needed replacement, but a life-span of at least 25 years is reasonable.

Some organs combine different kinds of action for different functions (eg mechanical key action and electric stop action).

2. Facing a major project for installing, replacing or rebuilding the organ - some difficult questions to address

Do we really need an organ?

Perhaps the first question to ask is 'For what purposes do we need an organ?'. Organs only became normative in churches and chapels in the later 19th century. A second question may be 'Who will play the organ?'. These questions are related to wider issues about the nature of the worship, the resources available, and the priorities of the members of the church. You might decide that support for overseas crises and missionary work matter more. Or you might decide that effective worship supported by good music is the base from which to establish a vibrant worshipping community that can find even better resources to respond to overseas need and mission.

Do we need to spend all that money on a pipe organ when an electronic provides more stops for far less cost and in a smaller space?

The pipe organ is a complex instrument. Most are unique and all involve a great deal of hand crafting. Consequently, they are expensive but, if properly built, long-lasting.

Electronic organs have developed rapidly, and some come close to matching pipe organs in the quality of sound. But they remain distinct, musically and aesthetically. The speed at which the technology of electronic organs moves on is so rapid that most become obsolete in 15 years, and few that have had substantial use are more than 25 years' old.

In making a choice between pipe and electronic organs, you will need to address questions of use, space available, aesthetics, budget and life-span. These matters have to be set alongside the needs and objectives of the church, its life and its mission.

Many of the aesthetic questions are comparable with decisions about materials, suitability and quality of the rest of the church – synthetic fabrics versus natural, cement blocks versus stone, for instance. Do you regard the organ as a sacred instrument of the liturgy, or as a functional sound-maker to give the pitch to the congregation and play the bridal marches at weddings?

A good electronic may well be better than a bad pipe organ. A good pipe organ (even a small pipe organ) has yet to be matched in sound by any electronic, especially when you listen to a single stop for half an hour! In the main, electronic organ firms place far more emphasis on sales and publicity skills than pipe organ builders in the UK. Take that into account.

Choosing a pipe organ builder

Pipe organ builders come in all sorts of shapes and sizes. There are well-established firms with an international reputation, who will undertake work on any scale; there are one-person operations specialising in routine tuning and maintenance; there are small firms or single craftsmen who specialise in mechanical or small instruments and renovations.

If you ask three different kinds of organ builder to prepare their own scheme to make a new organ or to rebuild the organ, you may well get three widely differing quotations. Prices may vary because of: the scope and nature of the scheme, the quality of materials, the standard of the workmanship, the overheads of the business. You need to draw up a basic specification, detailing the size of the organ, the kind of action required, and the extent of the casework in order to get a base for reliable comparison of quotations.

Some jobs that may be done perfectly well by one organ builder may be beyond the scope and ability of another. The person who does an excellent job of regular tuning may not necessarily be the person to undertake a major overhaul, a rebuild or a new organ.

Where to find good advice on selecting an organ builder

There is a great range of opinion about organs, but not all of it amounts to reliable advice. There are three main considerations: musical style and use, technical design and construction, casework. You may require separate advice on all three matters. If the installation of an organ is linked to a building programme, it is important to realise that only a very few architects have sufficient technical knowledge related to organ design and location.

Do not assume that an organist (even a cathedral organist) knows much about organ building and organ design – any more than you would assume that a car driver (even a chauffeur) knows much about car engineering or design. However, they may know where to find a good organ builder, and have an idea about pricing – and some are very knowledgeable.

Two organizations which may be particularly helpful

The Institute of British Organbuilding (IBO) inspects the work of pipe organ builders and provides a regularly updated list of approved organ builders. They also indicate what kinds of organ and other related work each organ-building firm is best suited to undertake. The IBO website is helpful, and even contains a section of sources of funding for organs (www.ibo.co.uk).

The Association of Independent Organ Advisers (AIOA) includes a range of advisers, some of whom come from an organ building background, and some of whom have a background as organists and musicians.

The Diocesan Organ Adviser

In the Church of England each diocese will normally have at least one organ adviser. (In other denominations there may be comparable provision.) Their principal task is to advise the Diocesan Advisory Committee on the suitability of applications for faculties which relate to organs. It is not their function to advise individual churches, though some may be willing to give a view in the preparation of a scheme or put you in touch with an independent organ adviser.

Second-hand pipe organs

There are organs that become redundant, especially when a church or chapel closes. Some are excellent instruments, some are better than you could afford new, others are indifferent. The British Institute of Organ Studies (BIOS) maintains a register of redundant organs, many of which can be acquired without cost. That said, such a 'free' organ may need to be dismantled, moved, re-erected, and possibly rebuilt or overhauled in the process. Beware of enthusiasts who say they can move an organ in their mate's van and have it installed in a jiffy! Take advice.

Historic organs

BIOS is registering organs of historical interest (and these may include instruments as little as 40 years old). Special care needs to be taken in appointing advisers and organ builders in relation to these historic instruments. Such instruments may also be better placed to attract grants for necessary work or restoration.

Electronic organs

Although digital electronic organs are generally less expensive than pipe organs, the prices, size and quality vary considerably. Many can be bought off the peg from firms who operate internationally; others may be custom-made to meet your needs and specifications.

If you are selecting an electronic organ, be clear to separate technical and musical quality from 'cosmetic' features of a glamorous console. If you have capable players, be sure that the keyboard and the pedal board are of good quality and durable. Ask for a demonstration in your church. At the demonstration, be sure that the company uses the range of amplifiers and speakers that they would actually install in the church or chapel. Find out how up-to-date and reliable the technology is. Ask for a list of customers who have bought similar or identical instruments from that firm and contact them directly. Go and hear some installed models. Check out after-sales service and maintenance support. See also issues of maintenance below.

Faculties and other controls

In most denominations there are controls on what happens to the fabric of the church. This is not the place to describe these in detail. If you want to replace, remove, or reposition an organ in the Church of England, you will need a faculty from the diocese. An early enquiry with your church authorities is advisable.

3. Looking after the organ

Whether you have a pipe organ or an electronic organ, the instrument needs maintenance, though not too often if it is well made.

Temperature and humidity

The care of an organ begins with its environment. Pipe organs contain substantial quantities of wood and metal that respond to changes in temperature and humidity.

A pipe organ is likely to be comfortable at a steady temperature of about 15-20 degrees Celsius, and at a humidity level of about 60%. Local heat from radiators or radiant heaters may have an adverse effect. Some churches only heat the building at weekends, or during the day. Where a church is used most days, it may be worth comparing the costs of sustaining constant heating at around 15 degrees for 24 hours a day with the costs of raising the temperature 10 or more degrees when it is used. The stone may retain the heat sufficiently to make relatively small demands on fuel.

Tuning and routine maintenance

The number of times in a year that a pipe organ needs maintenance will depend on the conditions, its level of use, and on its size and complexity. Tuning and maintenance may be quarterly, every six months, or annually. Separate servicing arrangements may be necessary for the blower.

The firm that builds the organ may not need to be the same as the firm that maintains it. When negotiating a contract for a new organ or a major rebuild, explore arrangements (and costs) for tuning and maintenance, as well as implications for guarantee.

If the organist is properly trained by the organ tuner, then he or she may be able to take on minor tuning (e.g. of reeds which go out of tune faster). (An organist who nips into the inside of the organ to tweak this pipe or that as an uninformed amateur may do far more harm than good.)

Routine maintenance may not be necessary for an electronic organ on so regular a basis, but it is wise to ensure that there is proper provision for after-sales service and repair when buying an instrument. If there is a failure it may require substantial replacement of circuit boards or other electrical components. Electronic

organs may suffer if the atmosphere is excessively damp, and the parts made of wood and metal will also be affected by temperature.

Building work

Nothing clogs an organ's pipes and action more effectively than gritty dust. If there is building work or decoration in progress in the church, you need to think in advance about protecting the organ. Take advice from the organ builder or tuner on the best way of doing this. Do not allow the building contractor to get into the organ to protect it (or for anything else), or you may find your church having a bill for damaged organ pipes and broken wind trunks....

The roof over the organ

Even more devastating than dust is water. Make sure the roof over the organ does not leak.

Vandalism

A vandal with a fire extinguisher or two large clumping boots inside a pipe organ can do thousands of pounds of damage in a few seconds. Security and insurance cover need to be kept in mind.

4. More information

Association of Independent Organ Advisers (AIOA)

Dr William McVicker (Chairman)

E: williamMc@aioa.org.uk

Website: www.aioa.org.uk

British Institute of Organ Studies (BIOS)

Melvin Hughes (Secretary), Ashcroft, 10 Ridgeway Close, Reigate, Surrey, RH2 0HT

T: 01737 241355

E: secretary@bios.org.uk

Website: www.bios.org.uk

Institute of British Organ Building (IBO)

The IBO website features a fully searchable database of redundant organs.

13 Ryefields, Thurston, Bury St Edmunds, Suffolk IP31 3TD

T/F: 01359 233433

E: administrator@ibo.co.uk

Website: www.ibo.co.uk

Scottish Federation of Organists (SFO)

This website lists redundant organs in Scotland.

Mrs Bridget Black (Secretary)

T: 01463 230588

E: secretary@scotsorgan.org.uk

Website: www.scotsorgan.org.uk

Disclaimer

Where recommendations are made, and especially where processes that may have legal implications are commended, we make these in good faith, but emphasize that these are intended for guidance and are made without liability. RSCM members should seek their own legal guidance wherever they believe it to be appropriate or necessary.

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