



## DAC Guidance

# Clocks and their care

---

Until the early 20th century, when cheap pocket-watches and then wrist-watches became ubiquitous, the parish church was the traditional site for a public clock. Nowadays nearly every parish church still possesses a clock on the tower or external wall. This clock will almost certainly be of some age, and it may also be a local landmark like the striking quarter-jacks at Christ Church in Bristol. In addition, there may be other old mechanical clocks within the church which have been acquired over the years.

This guide gives general information about the care and maintenance of older clocks, and how to obtain expert help.

### **TOWER CLOCKS**

Tower clocks (or “turret clocks” as they are known to horologists) were introduced in the early 14th century. The clock at Wells Cathedral is one of the very earliest, dating from around 1390, and is of national significance. However this is an exception; although there are some 18th century and even earlier clocks in this Diocese, the majority of church tower clocks date from the Victorian era or the early 20th century. In common with most engineering work of this period, they are usually very well-made and if kept in good order are capable of service for many more years, and certainly longer than a modern version.

Tower clocks consist usually of a long heavy pendulum (in large clocks this can be up to 14’ in length) which is suspended from a one or two-tier mechanism or “movement”. The movement includes gear wheels, rods, weights, wires and hammers, all supported in an iron frame, and connected to a bell to sound the time. The dial is the only visible portion from outside the church; but inside the clock mechanism may take up much of the tower. There may be additional features such as carillons (providing musical chiming), striking on the quarter hours, or striking figures (known as “jacks”), although these are comparatively rare.

Tower clocks were designed and constructed in a different way from domestic clocks of the same period such as long-case (“grandfather”) or mantel clocks. If you need to arrange for

repair, it is important to choose someone who is properly qualified and experienced with tower clocks. See below for advice about finding a suitable repairer.

## **OTHER CLOCKS**

Often there are other old mechanical clocks in the building which have been acquired or given over the years. Perhaps there is a Victorian wall-clock in the vestry, or a mantel clock from the former rectory, or even an antique long-case. If so, it is not surprising; churches have always needed timekeeping devices. In the 17th and 18th centuries English clockmakers exported clocks (particularly long-case clocks) to Catholic countries and mosques in the Ottoman Empire. If you have an old clock, it is part of the history of the church and may be of great interest in the future.

If you have a clock which needs attention, the best solution is to keep it somewhere safe until funds are available for repair. As with tower clocks, it is important to choose someone who is properly qualified and experienced with this particular type of clock. Until then, follow a few simple guidelines to avoid new damage:-

- \* Try not to move it around frequently.
- \* Keep it as dust-free as possible and do not fiddle with the mechanism as breakages can easily occur.
- \* Keep keys or winding handles with the clock, clearly labelled.
- \* Do not oil moving parts – clocks require special lubrication and the oil you use will almost certainly do more harm than good.
- \* Guard against theft; old clocks can sometimes be very valuable.
- \* Obtain a professional valuation for insurance purposes.

## **SPECIALIST ADVICE**

The Diocese has an expert Clocks Adviser, Mr John Plaister MBHI, who has unrivalled knowledge of clocks in general and who has been providing advice to three dioceses for over 20 years. Please contact the DAC secretary if you would like his advice. There is no fee for the consultation.

## **FINDING A CLOCK REPAIRER**

Clock-making has seen huge developments over the centuries and there are many different types of clock. As mentioned above, being part of the fabric of the church, tower clocks are different in design and construction from domestic clocks. Even if you can find a clock repairer in your area – and they are increasingly difficult to find – he or she may not be capable of working on tower clocks.

The DAC's advice is that all repairs should be carried out by a BHI-approved repairer who specialises in the type of clock needing attention. The BHI (British Horological Institute) publishes the list of approved repairers on its website ([www.bhi.co.uk](http://www.bhi.co.uk)) on a geographical basis. You will find that tower clock specialists are few and far between, but most of them will be prepared to travel long distances.

## **REPAIRS AND ALTERATIONS**

A professional clock repairer will provide a quotation listing the areas of the clock he/she proposes to attend to. A basic overhaul is normally essential. Any clock will be subject to wear to its components over the years. Tower clocks suffer from the effects of wind, rain and snow on the external parts; and inside the church the movement undergoes dust, damp, vibration (from the bells), the effects of birds and bats, and occasional mistreatment by humans. Despite being far more reliable than most modern machines – compare a motor car for instance – like any mechanical object, clocks do need regular attention.

Sometimes the repairer will offer a number of “optional extras” at additional cost. It is not unusual for different repairers to recommend different treatments; there is always an element of the unknown when a clock is dismantled for repair and in the case of a tower clock it may be impractical for the repairer to remove the clock for attention in the workshop. Because of this it is useful to obtain at least two quotations and to talk them over with the Diocesan Clocks Adviser before agreeing on a course of action.

### **Automatic winding**

The installation of an electric automatic winding system is perhaps the most common improvement to be requested. In many cases, there is a health and safety incentive as a powerful tower clock mechanism in motion can be dangerous, particularly to unwary visitors. The automatic winding motor removes the need for regular manual winding, which can require a great deal of energy. However it must be done correctly as in the past some conversions have been badly carried out leaving the clock with parts missing or even completely replacing the old movement. An auto-winding system should be sympathetic to the clock and the Council for the Care of Churches (the CCC) has produced guidelines for installation with which any approved tower clock repairer should be able to comply. (Please ring the CCC or the DAC office if you would like a copy of these guidelines.)

### **Night silencing mechanisms**

The parish may be asked by neighbours to stop the chiming of the bell during night hours. Night silencing units are available either as standard units or designed and manufactured specially to fit the individual clock.

### **Restoration of the dial**

Some restoration work can be done on site using scaffolding (which is expensive) or roped access equipment (a more economical solution). Sometimes the dial and/or hands may need to be removed to the workshop. Re-gilding is done with 24 carat gold leaf and is best done in the workshop, especially as the dial will need cleaning down before the gold is re-applied.

### **IS A FACULTY NECESSARY?**

A faculty may be needed if the work is of a major nature or if a major alteration is planned, such as the installation of automatic winding. Contact the DAC secretary for more information.

### **FUNDING AND VAT**

If the church is listed then maintenance of the clock will qualify for the return of the VAT under the Listed Places of Worship Grant Scheme. The details and application form are on the website [www.lpwscheme.org.uk](http://www.lpwscheme.org.uk).

A number of clocks in this Diocese have been refurbished with help from grant-making trusts or funds including the Heritage Lottery Fund. Local trusts may have a particular interest in helping with your clock.

The Church Buildings Council makes grants specifically for historic clocks. Local authorities, normally at parish council level, have the power to make grants towards the upkeep of public clocks because of their amenity value. Contact your local authority conservation officer for further information.

## **SUMMARY**

There has been a revival of interest in public clocks. The 2006 overhaul of Big Ben was only one well-publicised example; there are efforts all round the country to retain the distinctive church or public clock as a working feature of town life. It is often easier to raise funds for a church clock than for the church itself, and there is a wealth of interest, information and expert advice available to help you.

## **FURTHER INFORMATION**

This leaflet is intended for general information only. For more detailed advice about any particular clock, parishes are recommended to contact the Diocesan Clocks Adviser, via the DAC Secretary.

The DAC particularly recommends the following publications which are all by Chris McKay:-  
The Turret Clock Keeper's Handbook Published by the Antiquarian Horological Society, [www.ahsoc.org](http://www.ahsoc.org).

Straight-forward advice on matters like winding, setting to time, regulation, correcting out-of-sequence striking and chiming, and what to do if the clock has stopped. Also includes a brief history of turret clocks, a typical turret clock installation, maintenance advice, bibliography and glossary of terms. £2.00 per printed copy plus postage and packing – a bargain! Or downloadable from website listed below.

Guidelines for Turret Clocks: Commissioning Turret Clock Work.

Ideas on quotations and interpretation, warranty, acceptable and unacceptable exclusions, and pricing structures.

Guidelines for Turret Clocks: Simple Cost-Effective Strategies for Preservation.

Simple procedures that any church can put into action to help preserve their turret clock.

Guidelines for Turret Clocks: Health and Safety Assessment.

Ideas on what to look for when carrying out a risk assessment on a turret clock and its access.

Guidelines for Turret Clocks: Repair, Restoration, Conservation, Preservation and Maintenance.

Specialist advice for clockmakers and DAC clocks advisers.

All of the above can be downloaded free of charge from <http://www.turretclock.force9.co.uk>.

## **USEFUL ADDRESSES**

### *Bristol City Council*

Mr J Brett, Department of Urban Design, Brunel House,  
St George's Road, BRISTOL BS1 5UY

Tel: 0117 9223033 Email: [john\\_brett@bristol-city.gov.uk](mailto:john_brett@bristol-city.gov.uk)

### *South Gloucestershire District Council*

Archaeology and Conservation Officer, Mr D Haigh, Civic Centre,  
High Street, KINGSWOOD, S. Glos BS15 2TR

Tel: 01454 863434 Email: [david\\_haigh@southglos.gov.uk](mailto:david_haigh@southglos.gov.uk)

### *North Wiltshire District Council*

Senior Conservation Officer, North Wiltshire District Council, Monkton Park, CHIPPENHAM,  
Wilts, SN15 1ER

Tel: 01249 706660

### *Swindon Borough Council*

Liz Smith, Conservation and Design Officer, Premier House,  
Station Road, SWINDON SN1 1TZ

Tel: 01793 46600 Email: [lsmith@swindon.gov.uk](mailto:lsmith@swindon.gov.uk)

### *British Horological Institute*

Upton Hall, Upton,  
Near Newark, Notts NG23 5TE

Tel; 01636 812258 [www.bhi.co.uk](http://www.bhi.co.uk)

### *Antiquarian Horological Society*

New House, High Street,  
TICEHURST, East Sussex TN5 7AL

Tel: 01580 200155 [www.ahsoc.org](http://www.ahsoc.org)

Council for the Care of Churches

Church House, Great Smith Street

LONDON SW1P 3NZ

Tel: 020 7898 1866 [www.churchcare.co.uk](http://www.churchcare.co.uk)

This document is issued under the authority of the Bristol Diocesan Advisory Committee for the Care of Churches. It may be copied by parishes for use by clergy, churchwardens, the PCC and other proper officers. Permission to copy for other users must be obtained from the Secretary of the DAC.