

Quick Guide...

Church heating and its impact on pipe organs

Prepared by the Committee on Church Art and Architecture

This brief note has been prepared to assist church office bearers to understand the fundamental issues that may arise in respect of church heating and its impact on pipe organs. These comments will also be relevant to some other musical instruments used in churches. More detailed guidance is available from the Institute of British Organ Building in their paper entitled 'Church Heating and the Organ - advice for those who have to care for the organ' (<http://www.ibo.co.uk/publications/leaflets/churchHeating.pdf>).

- Organ preservation and church heating systems are in often conflict. Older organs with components comprising timbers and leather are prone to damage by rapid changes in humidity, which are in turn brought about by rapid changes in internal air temperatures.
- To avoid expensive repair bills it is best to try to limit the rate of rise of temperature to around 1 degree C per hour in churches with a valuable or delicate pipe organ.
- This can be achieved by slow response heating systems, such as underfloor heating, and/or by using automatic heating controls systems to limit the rate of temperature rise.
- Since heating controls can vary substantially in their sensitivity, it is important to use accurate thermostats and humidistats, and to have them calibrated regularly.
- Rapid response heating systems, such as direct gas-fired heating, are best avoided in churches with older pipe organs.
- Hot water heating systems based entirely on rapid response heaters, such as fan convectors should also be avoided. However, where a church heating system has a mixture of radiators and fan convectors, this need not necessarily be problematic.

- As a guide, humidity levels in churches with older pipe organs should be kept in the range 55% to 75 % Relative Humidity (RH).
- Where there is an older pipe organ, there is a strong argument for maintaining a winter background temperature of 10 degrees C during the week when there are no church services and raising this by 1 degree C per hour to not more than 20 degrees C for church services. This restricted temperature band helps to control changes in humidity. While this is not necessarily the most efficient approach to energy use, small additional energy costs are likely to prove much less over time than the cost of an expensive organ refurbishment.

Whom to Contact

Anyone wishing to contact the Committee should complete an enquiry form which can be found on the Resourcing Mission website (www.resourcingmission.org.uk/resources/carta) and email it to: gentrustees@churchofscotland.org.uk. Alternatively, you can telephone 0131 225 5722 and ask to speak to someone in the CARTA office.

CARTA Quick Guides

Other Quick Guides include advice on audio visual schemes, dementia friendly church buildings, access for all, stained glass and lighting. These can be accessed on the Resourcing Mission website (www.resourcingmission.org.uk/resources/quick-guides).

About the Authors

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