

Your Guide To
Air Conditioning Noise

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Introduction

Air conditioner noise levels would probably be a very highly contentious topic with neighbours, council and air conditioning contractors. Planning the location of the outdoor unit is very important so as not to impact on your neighbours and yourself. We have seen on too many occasions where the location of the outdoor unit is like a "red rag to a bull" where neighbours / council have taken the homeowner to court.

Other times, neighbours complain and make things difficult (maybe due to previous bad experiences) for you without any basis or understanding of what you're having installed.

We always recommend discussing the location of any outdoor unit with your neighbour and demonstrate what steps you will take to minimise any noise and your compliance with the relevant codes or applicable laws.

Furthermore, do not install any cooling / heating systems without first checking with your local council or the contractor if you require permission to do so. You can install a system without council approval only if it's a "COMPLYING" installation.

NSW Housing Code

Development without approval

Air-conditioning units - residential

You don't need permission from council to install an air-conditioning unit for your home if:

- It is for a home or house

Location

- It is not attached to a wall or roof that faces a primary road
- It is not in front of the building line to the primary road
- It is at least 450mm from any boundary
- It will be attached to the external wall of a building or be ground mounted
- Where the unit is wall mounted, it is not higher than 1.8m above ground level
- Please be aware that;
 - If your property is a listed heritage item or draft heritage item the unit is to be ground mounted only and cannot be wall mounted
 - If your property is located within a heritage conservation area or draft heritage conservation area the unit must be in the back yard

Other

- The installation of the air-conditioning must not affect the structural integrity of the building
- The installation of the air-conditioning must not reduce the fire resistance level of any wall
- Please speak with your air-conditioning unit supplier and ensure that your unit does not produce noise that exceed 5dB(A) above the ambient background noise level during that day
- At night, noise from the air-conditioning unit is not heard in a habitable room of a neighbour's house

You do need permission to install a residential air-conditioner if:

- You do not meet all of the above requirements

Further information:

- Your local council can be contacted for further advice
- You can find out whether your property is a listed heritage item, draft heritage item or within a heritage conservation area or draft heritage conservation area by contacting your local council
- For further information about noise control you should refer to the NSW Government's Noise guide for local government
- For further information about noise controls you should refer to the Department of Environment, Climate Change and Water's Noise Guide for Local Government

<http://housingcode.planning.nsw.gov.au/Developmentwithoutapproval/Airconditioningunitsresidential.aspx>

Allowable noise levels

Protection of the Environment Operations (Noise Control) Regulation Operations Act 2000

Noise limits and time restrictions for usage of air conditioners are set by the above body. Councils are responsible for enforcing these limits at residential properties. If a cooling / heating system exceeds these limits, councils may issue the operator with a warning or notice. If the air conditioner continues to be used in excess of the noise and limits, councils are able to issue on-the-spot fines.

Air conditioners can be used during the following times:

- Weekdays **7am to 10pm**
- Weekends and public holidays **8am to 10pm**

The allowable noise level during 7am to 10pm is no more than 5 dB(A) sound pressure level above background noise.

ABSOLUTE COMFORT

This is measured at the boundary between the owner and the neighbours' properties.

The allowable noise level during 10pm to 7am (or 8am) is zero dB(A) above background noise. This is measured at the neighbours nearest habitable room or window. Ensure your unit is inaudible from neighbours' homes if you require longer hours of operation. Some councils may impose other specific noise levels, PLEASE CHECK!!!

You have being warned!

Noise issues associated with heating / cooling units are often the result of the purchaser or user being unaware that their actions are affecting neighbours or by exceeding noise levels; they are breaking the law and could be fined.

You cannot say I didn't WARN YOU!

We find, limited knowledge and advice from retailers and backyard operator's and installers, and lack of planning by you the owner, on the location and use of heating / cooling systems contributes to noise impacts.

Installers and retailers have an obligation to provide responsible advice and service.....

GO ELSEWHERE IF THEY CANNOT PROVIDE THIS BASIC SERVICE

Where to install?

Consider where the system to be installed. Some systems are quieter than others and some have flexibility in where they can be located.

- Consider buying premium quality units designed for quiet operation. Furthermore a system that has night-time quiet mode allowing you to further reduce the sound levels.
- Systems should not be located adjacent neighbours windows. Try to locate air conditioners as far away as possible from neighbours' windows and outdoor areas. Consider placement distance as the volume of sound decreases over distance.
- Systems should not be installed adjacent neighbours bedrooms or living areas. As far away from the boundary as possible

Systems have flexibility in the way they are installed and should be located closer to the ground. This allows fences and barriers to be used to screen the noise and blocks the line of sight of the unit. Acoustic screens/baffles are an effective means of reducing the impact of noise. A screen must not restrict airflow as this can affect the system's efficiency. Check with the manufacturer of your system to see whether they have any after-market sales of noise enclosures.

- Avoid locating a system near reflective surfaces such as walls and eaves.
- Installation of air conditioning systems should be done by a qualified technician as siting for air flow efficiency helps reduce noise impact.
- Air conditioners need to be well fastened as poor attachment can result in increased noise. Techniques such as isolation springs or feet can be used to reduce vibration.
- Ensure the system is regularly serviced, secure and doesn't vibrate.
- Council requirement is a minimum of 450mm from any boundary and not over 1.8m high or in front of a building line.

Acoustic Consultant?

You have followed all the above steps, and the complaints are still coming in.....! You're in deep POO!!

WE HAVE NEVER INSTALLED A SYSTEM and had this as an end result. **WE HAVE** attended installations carried out by "COWBOYS" and rectified the situation where it was cheaper for the owner to have sat in a bathtub **"burning \$100 notes"!!!!!!**

In a situation where there is doubt with noise compliance, an acoustic consultant **should** be engaged to ensure peace of mind **BEFORE** commencement of works. Only they can determine with whether the project will comply with the relevant codes / laws.

When we've had doubts.....we've engaged consultants!

Key Points

- If a seller can't tell you the sound and pressure levels of the system he is selling you – look elsewhere!
- If in doubt, consult an acoustic engineer or – look elsewhere!
- Don't part with your cash without a sensible outdoor location and warranty from a seller that has been in business long enough to support their claim

Disclaimer:

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Any references to legislation are not an interpretation of the law. They are to be used as a guide only. The information in this publication is general and does not take into account individual circumstances or situations. Where appropriate, independent legal advice should be sought.