



# Guidelines on Air Conditioning and Ventilation Systems in Community spread of COVID-19

These guidelines provide recommendations applicable to 6 distinct scenarios which include:

1. Shopping malls and large establishments
2. Small shops and offices
3. Open plan offices
4. Home air conditioning systems
5. Car air conditioning systems
6. Indoor fans

**Air conditioning and ventilation systems related to hospital and healthcare establishments fall beyond the scope of these guidelines.**

These guidelines are not intended to replace any mandatory national and international standards and norms that are in place.

## Recommendations

- Ventilation of **establishments, offices and workspaces shops and households** should be through fresh air from either windows and doors, or air-conditioning units equipped with ventilation systems. Measures are required to reduce the risk linked to the horizontal movement of air potentially laden with suspended viral particles across a room and between persons.
- ✓ **Air-conditioning systems in large establishments, shopping malls and large office buildings** that are equipped with ventilation systems are suitable if they provide at least 3 air changes per hour of fresh air so as to satisfactorily dilute the air being circulated - this information can be obtained either from the installer or by contracting a ventilation engineer.
- ✓ **Air-conditioning systems in large establishments, shopping malls and large office buildings** that are **not** equipped with ventilation systems are



to be kept switched off unless they can be fitted with a suitable ventilation system that can provide at least 3 air changes per hour of fresh air - this can be done by contacting the installer or contracting a ventilation engineer. Until ventilation is available, windows and doors should be kept open to provide natural ventilation. Additional extractors are recommended which must be thoroughly cleaned regularly.

- ✓ **Stand-alone units that service one single room used by a single person (or the same household or always the same persons),** can be utilised normally so long as the filters are cleaned well and maintained properly.
  - ✓ **Stand-alone units which service areas used by a number of persons (e.g., shops, salons, common areas, reception areas, waiting rooms),** can be utilised as long as doors and windows are kept open, the flaps are directed towards the ceiling, the filters are cleaned well and maintained properly, and recirculated air-conditioning avoided. Additional extractors are recommended which must be thoroughly cleaned regularly.
  - ✓ Airconditioned rooms should have all windows and doors closed while the air-conditioning system is switched on, **except in circumstances where air conditioning systems do not provide for at least 3 air changes per hour.**
- **Vehicles** (e.g., buses, coaches, private cars, taxis, vans, etc.):
1. Avoid using the recirculated air option for the vehicle's ventilation
  2. Operate the AC with ventilation selector on outside air. Typically, this is presented with the following icon.



3. On long trips either keep windows slightly open or open windows frequently to ventilate with fresh air



- **Indoor fans** should be used in combination with open doors and windows and arranged to blow air either towards the ceiling or towards the floor, in a way that horizontal movement of air is avoided.