

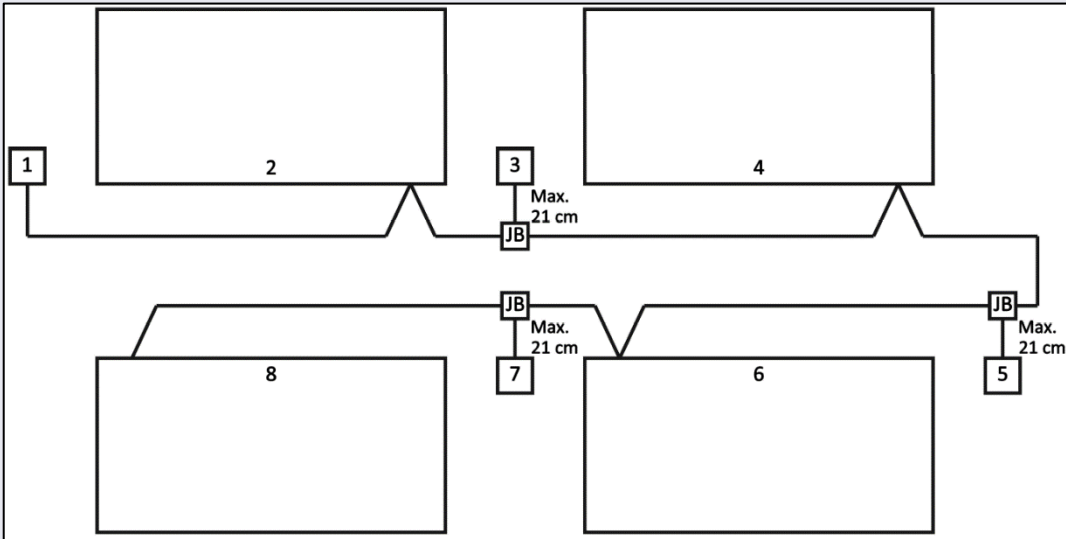
AirMaster Installation Guidance

This is a quick guide with general tips for an AirMaster wall mounted unit installation. The intention is to help avoid common problems that installers face and help with understanding the full guide.

Note: **Always** read the full installation manual for your exact model details as changes may have occurred since this guide was written.

Mechanical	
Panels and Access Doors	The casing panels should always be protected from damage on site, especially when using lifting gear. If panels get scratched, they will need to be replaced. Some installers remove the hinged access door completely. However, if this is done, it is imperative that the safety circlips be re-fitted when the door goes back on. Otherwise there is a risk of the door coming away and causing injury/damage! When closing the access door, start with the fixings on the non-hinged side, and then close off those on the hinged side (it is much easier this way, and will avoid the risk of distortion). When installation has been completed, the hatch must be closed, and units turned off until the commissioning is completed. This is to avoid site-detritus entering the units and blocking the filters.
Important!	In the case of multiple units, each unit will be labelled as to which position/room it is to go in. The internal control box will have been programmed at the factory to reflect this labelling. If the units are placed in any other sequence, they will not work without costly re-programming.
Positioning	Distance between top surface and ceiling = 10-20mm approx. Distance from side wall = 500mm approx. from any side wall (this must be observed for the side containing the extract grille). Keep smoke detectors away from in/out grilles or false fire alarms may result. Light fittings (other than pendant type) and other obstacles should not be placed within 8 m in front of the inlet grille (from the AHU unit into the room), otherwise draughts will result. Keep a clear space below the unit of min 1 m for maintenance.
Ducts	Holes drilled through wall need to be 10-15 mm larger than the duct diameter to provide clearance and ensure that the duct is not bent or twisted. Sealant is required where duct meets inner and outer walls. Drill 1° or 2° downwards so that any moisture runs to the outside. Exposed ducts within an office/classroom etc. must be acoustically insulated to keep noise to a minimum.
Wall Bracket	For marking duct holes please refer to the Appendix of the Installation Instructions. Where clearances are critical, a wall frame can be sent to site in advance of main shipment to provide a template for marking out the holes.
Condensate	Condensate pumps are not required for normal dry applications as only a small amount of condensate is produced, and this is evaporated off. For humid areas such as bathrooms and kitchens, a condensate pump is normally supplied which would require a drain to be provided. In humid areas, a 16 mm drain would be required for units without condensate pump. If a unit has an integral pump fitted, the pipe must be 8 mm but should then be connected to a waste pipe and have a siphon trap.
Weight	The units are heavy so good fixings are essential. We strongly recommend using mechanical hoists for safety whilst lifting.

Electrical

Power Supply	Each AHU requires a 230 V power supply. Cooling modules (if specified) are provided with a connecting cable for communication and power, which is to be wired up at site to the associated AHU.
Cables	Use CAT6 2x2x0.6 STP (shielded twisted pair) or 2x2x0.6 FTP (foiled twisted pair) solid core data cable (CAT 5, CAT 5e, CAT 6) for the control panel and sensor wiring. Most communication problems are cable related, so be careful that only solid core cable be used. For multiple units forming a group: Cables MUST be daisy chained with no junction boxes or spurs e.g. run a cable from the first controller to the AHU, then on to the next panel, then the next AHU etc. so that you only have an 'in and out' cable at each position. N.B. the control panels have a flat back-plate with not much room for two cables. We recommend that you create a small space behind for the outer sheathing and then bring just the cores through into the controller. (Unfortunately, UK switch back boxes are slightly too large so cannot be used.) Terminate shields at AirMaster units only, not at control panel or sensors.  Note that examples of the communication wiring can be found in the Appendix of the Installation Manual entitled: “CONNECTIONS · COMMUNICATION · COMMISSIONING”
Dip Switches (& jumpers)	The first and last items in the circuit should have the dip switch set to on (or in the AHU the jumper would be applied as they do not have dip switches). In the example above, dip switches should be set to 'on' in number 1 controller and number 8 controller. If an AHU is last in line (i.e. 7 and 8 were swapped round) the 'jumper' in 7 would be fitted instead of the switch in 8.
CO₂ Sensor (if fitted)	CO ₂ sensors can be supplied either fitted internally to the AHU, or wall mounted. If wall mounted, place at least 1 m away from unit and 2 m above floor level). (See p. 17 in manual for connections)
Important!	Where multiple units are to be connected to the same dedicated circuit, this should not be through an RCD otherwise nuisance tripping will result. Individual circuits with RCD will be fine.