

CMX-MULTI (Standard Unit)

CMX-MULTI-H (Integral Humidistat)

Mechanical Extract Ventilation

Installation Instructions

Warnings & Safety Information

IMPORTANT INFORMATION: PLEASE READ THESE INSTRUCTIONS CAREFULLY BEFORE COMMENCING INSTALLATION

DO NOT SWITCH OFF THE UNIT – it is designed to run continuously. If the unit is switched off, indoor pollutants and moisture levels may increase which could endanger your health or damage your home.

It is important to follow the advice in this manual and correctly maintain the system to ensure a healthy indoor environment

1. Do not install this appliance in areas where the following may be present or occur:
 - a. Corrosive and flammable gases, liquids or vapours.
 - b. Excessive oil or a grease laden atmosphere.
 - c. Be subject to direct water spray.
 - d. Ambient temperatures higher than 50°C and lower than -25°C.
 - e. Possible obstructions that may hinder access, maintenance or removal of the unit.
2. This appliance is not intended for use by young children or infirm persons without adequate supervision.
3. All wiring must be in accordance with prevailing and current national regulations, for example the current IEE Wiring Regulations BS7671. The electrical installation should be inspected and tested by a suitably qualified person after completion.
4. The appliance should be provided with a local double pole fused spur fitted with a 3 Amp fuse and a minimum contact separation of at least 3mm.
5. Ensure that the mains supply (Voltage and Frequency) complies with the rating label.
6. This appliance must be earthed.
7. When installing the appliance, care should be taken not to damage any hidden utilities.
8. The installer is responsible for the installation and electrical connection of the **CMX-MULTI / CMX-MULTI-H** system on site. It is the responsibility of the installer to ensure that the equipment is safely and securely installed and left only when electrically and mechanically safe.
9. All regulations and requirements must be strictly followed to prevent hazards to life and property, both during and after installation and any subsequent servicing or maintenance.
10. In dwellings where it is intended to install open-flue appliances and extract ventilation, the combustion appliance should be able to operate safely, irrespective of the operation of the **CMX-MULTI / CMX-MULTI-H** unit. A way of showing compliance with The Building Regulations in these circumstances would be to follow the installation guidance shown below, and to show by tests that combustion appliances operate safely, whether or not the **CMX-MULTI / CMX-MULTI-H** fans are running.
11. For gas appliances: where a room contains an open-flue appliance, the extract rate should not exceed 20l/s (72m³/h); accurate at the time of publication. Please refer to current legislation and guidance for gas appliances.

12. For oil appliances: where a room contains an open-flue appliance, the extract rate should be limited to 40l/s (144m³/h) for an appliance with a pressure jet burner and 20l/s (72m³/h) for an appliance with a vaporising burner; accurate at the time of publication. Please refer to current legislation and guidance for oil appliances.

13. For solid fuel appliances: avoid installing extract ventilation in the same room; accurate at the time of publication. Please refer to current legislation and guidance for solid fuel appliances. Further reference should be made to Approved Document J of The Building Regulations.

14. This appliance should not be directly connected to a tumble dryer or cooker hood.

15. A supply of fresh replacement air must be drawn from the exterior of the property. Further reference should be made to Approved Document F of The Building Regulations.

16. The extracted air must be expelled to the exterior of the property.

17. Extract ceiling valves should be positioned at least 300mm from internal walls to allow airflow measuring equipment to fit correctly over the valves.

18. Ducting should be insulated where it passes through unheated spaces and voids (e.g. loft spaces) to reduce the possibility of condensation forming.

19. Minimum distance between unit and external wall should be fully installed with at least 400mm 50N pull-force of ducting on unit outlet(s).

20. To avoid injury by electrocution or moving machinery; ensure that the unit and control are electrically isolated from the mains supply until the unit is fully installed with at least 400mm of ducting on unit inlet(s) and outlet(s).

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2.0 General description	2	2.3	
3.0 CMX-MULTI / CMX-MULTI-H: Physical specification	3		The boost facility can also be triggered from a lighting circuit or by a range of sensors, including humidity control and PIR movement detection (supplied separately – see section 7.0).
4.0 Installation	3	2.4	
5.0 Ducting Guidelines	3		This product is listed in the Products Characteristics Database (PCDB), therefore part of the installation process requires that an installation checklist is completed and submitted to the Building Control Body (BCB). Blank checklists are available at www.ncm-pcdb.org.uk/sap/ . The NCM (SAP) identifier for this product is Domus Ventilation.
6.0 Unit Wiring	4	2.5 Ancillary items required:	
7.0 Remote Switches Wiring	5		<ul style="list-style-type: none"> • CMX-ASK1 or 2404W air supply kits with filter.
8.0 Commissioning	5	2.6 Control switch options – supplied separately (see page 5)	
9.0 System Balancing	6		<ul style="list-style-type: none"> • Manual BOOST selection switch. LOW speed is engaged upon connection of mains supply. Both speeds are manually adjustable at the wiring centre to facilitate Building Regulation commissioning speeds.
10.0 Maintenance	6	2.7 Remote/automatic control options – supplied separately (see section 7.0)	
11.0 Warranty	6		<ul style="list-style-type: none"> • Adjustable overrun timer, code ANC108A. • Humidity control with adjustable overrun timer, code ANC802A. • Humidity control with adjustable overrun timer and manual override (pull cord) with neon indicator, code ANC808A. • 6-Switched live back feed protected junction box, code ELE150R. • PIR movement control with adjustable overrun timer, code ANC813A.
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2.0 General Description

2.1

The CMX-MULTI/ CMX-MULTI-H appliance is a key part of a whole house ventilation system specifically designed to improve indoor air quality in dwellings. The system is designed to remove polluted, stale air from all bathing, cooking and washing areas at a constant gentle rate. Fresh replacement air is supplied through background ventilators installed in all living areas.

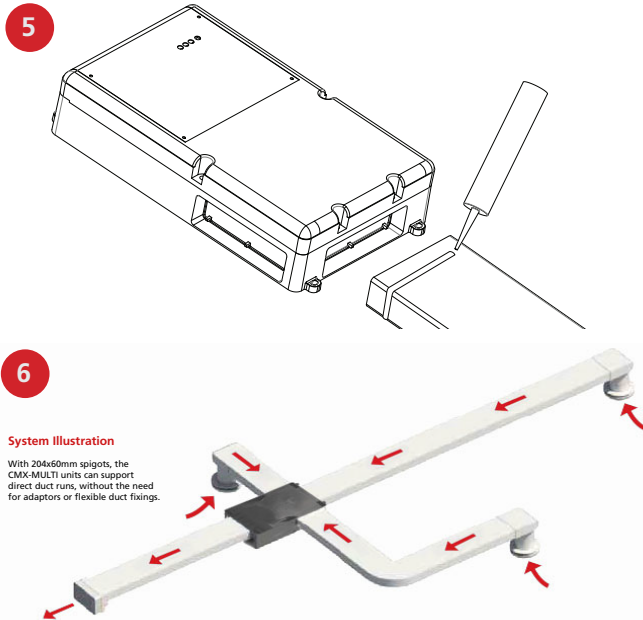
2.2

A manual boost switch can be used to increase the ventilation rate, e.g. when cooking or showering thereby maintaining a comfortable indoor environment.

5.1

Domus Ventilation recommend securely connecting rigid ductwork to the spigots using **DDSEAL** acrylic sealant (see figure 5). Failure to do this will cause unnecessary air leakage and impair performance.

Important: ensure that direction of airflow travels from ‘wet rooms’ to atmosphere (see figure 6).



5.2

Ducting attached to the appliance must be supported adjacent to the appliance using 522 Support clips. This is important for major maintenance or end of life replacement to ensure that the ducting is adequately supported if the **CMX-MULTI / CMX-MULTI-H** body is removed.

5.3

Where ducting passes through unheated areas and voids (e.g. loft spaces) it must be insulated in order to comply with Approved Document F of The Building Regulations.

5.4

When passing through a fire-stopping wall or fire-compartment wall, **FireBrake** intumescent duct connectors should be used in order to comply with Approved Document B of The Building Regulations.

5.5

Alternative proprietary fire-stopping methods may be employed provided they comply with Approved Document B of The Building Regulations.

5.6

Rigid ducting – install using the least number of fittings to minimise resistance to airflow. All duct runs should be as short and as straight as possible for maximum performance.

5.7

Ducting attached to the appliance must be supported adjacent to the appliance using 522 Support clips. This is important for major maintenance or end of life replacement to ensure that the ducting is adequately supported if the **CMX-MULTI / CMX-MULTI-H** body is removed.

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Where ducting passes through unheated areas and voids (e.g. loft spaces) it must be insulated in order to comply with Approved Document F of The Building Regulations.

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Alternative proprietary fire-stopping methods may be employed provided they comply with Approved Document B of The Building Regulations.

5.11

Rigid ducting – install using the least number of fittings to minimise resistance to airflow. All duct runs should be as short and as straight as possible for maximum performance.

5.12

Domus Ventilation Sound Attenuators 5SL-500 can be installed directly on to the unit without the need for transformation connectors.

5.13

The stale extract air must be expelled to the exterior of the property. If expelled through a wall, an airbrick should be fitted. If expelled through the roof a universal roof terminal should be fitted or a proprietary roof terminal designed for mechanical ventilation with a free area of at least 15175mm².

5.14

Further details regarding installation can be found in the 2010 Domestic Ventilation Compliance Guide.

5.15

WARNING: This appliance must be earthed.

5.16

Important: All wiring must be carried out by a qualified electrician and conform to the prevailing national regulations, for example the latest edition of BS7671: IEE Wiring Regulations.

5.17

This appliance is suitable for 230V 50Hz single phase supply only, fused at 3 Amps.

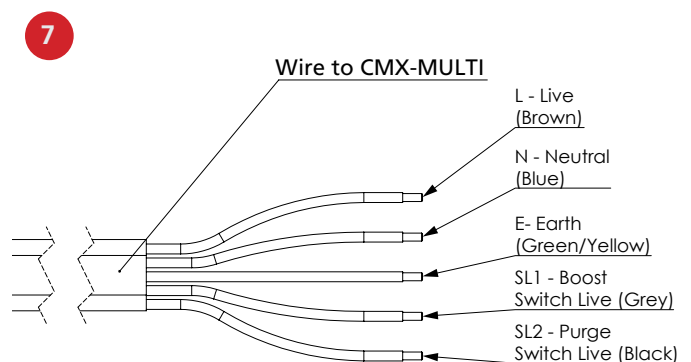
5.18

A double-pole switch having a minimum contact separation of 3mm must be used to provide isolation for the appliance.

5.19

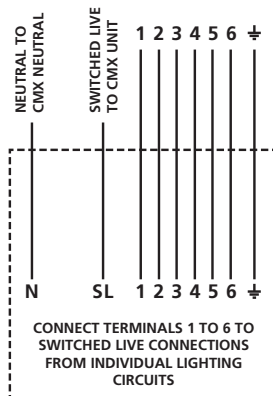
External isolators to be supplied by others.

6.0 Unit Wiring



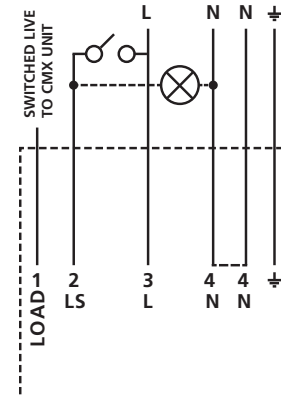
7.0 Remote Switches Wiring

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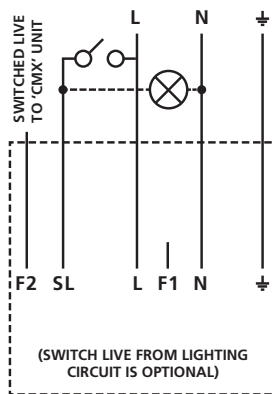
ELE150R – SWITCHED LIVE EXTENSION BOARD

9



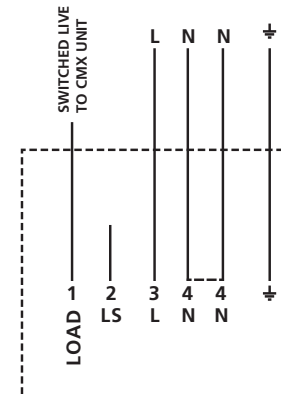
ANC108A – OVERRUN TIMER

10



ANC802A – HUMIDISTAT WITH TIMER
ANC846A - HUMIDISTAT WITH TIMER AND REMOTE SENSOR

11



ANC813A – PIR WITH OVERRUN TIMER

8.0 Commissioning

8.1

When the wiring connections have been checked, switch on the mains supply and check that the system is operating correctly. The appliance should switch between low and boost speeds using the chosen manual boost switch (see section 2.2). Check other switch and sensor functions are operating correctly.

8.2

To balance the system, airflow rates will need to be set at each room's air valve in accordance with the latest Domestic Ventilation Compliance Guide. Airflow measurements should be performed using a calibrated airflow measuring device and the results recorded in litres per second (l/s) onto the Inspection Checklist and Airflow Measurement Test Sheet contained within the latest Domestic Ventilation Compliance Guide. The most common method uses a vane anemometer, or similar, placed in a hood which completely covers the air valve to measure the extract or supply airflow rate. The instrument should be calibrated annually by returning the instrument to a UKAS accredited calibration centre and be capable of achieving an accuracy of $\pm 5\%$. We recommend using a Domus CM01 vane anemometer. Please call our Customer Service team on 03443 715523 for more information.

Room	Intermittent Extract	Continuous Extract	
	Minimum Rate	Minimum High Rate	Minimum Low Rate
Kitchen	30 l/s adjacent to hob; 60 l/s elsewhere	13 l/s	Total extract rate should be at least the whole dwelling ventilation rate given the table below.
Utility Room	30 l/s	8 l/s	
Bathroom	15 l/s	8 l/s	
Sanitary Accommodation	6 l/s	6 l/s	

	Number of Bedrooms in Dwelling				
	1	2	3	4	5
Whole dwelling ventilation rate ^{a,b} (l/s)	13	17	21	25	29

Notes

a. In addition, the minimum ventilation rate should not be less than 0.3 l/s per m² of internal floor area.

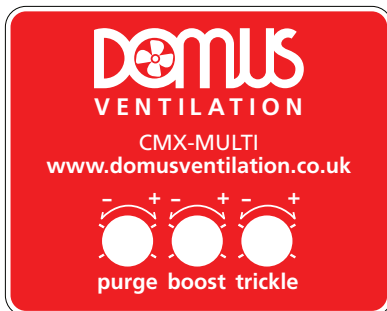
b. This is based on two occupants in the main bedroom and a single occupant in all other bedrooms. This should be used as the default value. If a greater level of occupancy is expected add 4 l/s per occupant.

8.3

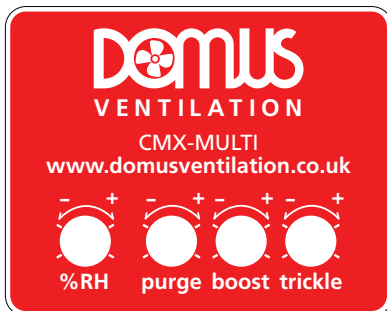
Each room airflow rate will need to be recorded on the Inspection Checklist and Airflow Measurement Test Sheet. A completed copy must accompany these instructions and be handed over to the dwelling's owner upon completion of the installation.

9.0 System Balancing

- Fully open all of the air valves (see figure 12).
- Switch the system to boost.
- Close all internal and external doors and windows.
- Measure the total air volume of the extract valves (wet rooms).
- To adjust the 'boost' control on the wiring centre in order to achieve the whole dwelling extract ventilation rate, remove the rubber tamper-deterrent cap and use only Domus Ventilation commissioning plastic adjustment tool, SPR439. **Warning: Do not use any other tool due to risk of touching live parts.**



- Adjust individual room air valves to achieve the individual room boost extract rates.
- Switch the system to low.
- Measure the total air volume of the valves.
- To adjust the 'trickle' control on the wiring centre in order to achieve the whole dwelling extract ventilation rate, remove the rubber tamper-deterrent cap and use only Domus Ventilation commissioning adjustment tool, SPR439. **Warning: Do not use any other tool due to risk of touching live parts.**



- To adjust the 'remote humidity' (%RH) sensor on the wiring centre, remove the rubber tamper-deterrent cap and use only Domus Ventilation commissioning adjustment tool, SPR439. **Warning: Do not use any other tool due to risk of touching live parts.**
- Using the lock nuts fitted to the air valves, lock in position (see figure 12).
- Refit the rubber tamper deterrent caps to the lid of the wiring centre.

Technical or commercial considerations may, from time to time, make it necessary to alter the design, performance and dimensions of equipment and the right is reserved to make such changes without prior notice.

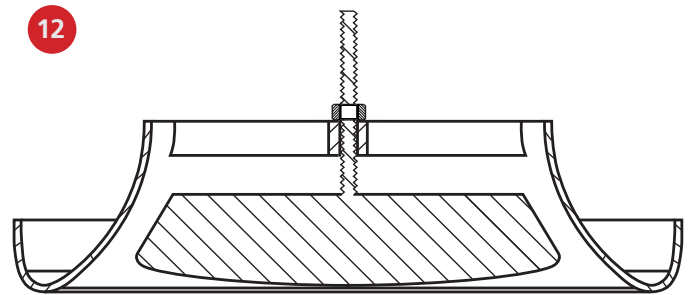
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10.0 Maintenance

The CMX-MULTI / CMX-MULTI-H appliance is essentially maintenance free.

11.0 Warranty

The 2 year warranty starts from the day of delivery and includes first year parts and labour, remaining year parts only. This warranty is void if the equipment is modified without authorisation, is incorrectly applied, misused, disassembled, or not installed, commissioned and maintained in accordance with the details contained in this manual and general good practice.

The product warranty applies to the UK mainland and in accordance with Clause 14 of our Conditions of Sale. Customers purchasing from outside of the UK should contact Domus Ventilation Sales office for further details.

The above warranty does not apply to nor cover the repair of any problem or fault with the product which arises as a result of: (a) failure to install, operate, maintain and/or repair the product or any associated parts and components (including any ducting) using reasonable skill and care and in accordance with the instructions provided with it (unless the original installation, maintenance or repair which gave rise to the problem or fault was carried out by or on the behalf of Domus Ventilation in which case this exclusion will not apply); (b) use of the product for any purposes other than those for which it is designed; (c) modifications made to the product by anyone other than Domus Ventilation or its approved contractors; (d) deliberate damage; and/or (e) damage caused by fire, flood or other water damage, explosions, rust or corrosion.

12.0 TECHNICAL SUPPORT

For technical assistance or further product information, including spare parts and replacement components, please contact Domus Ventilation via below contact details.

Telephone 03443 715 523
vent.technical@domusventilation.co.uk