

MEV+MEV-S

Continuous Mechanical Extract Ventilation Units Installation and Maintenance

1.0 Introduction

Nuaire's MEV units are designed to provide continuous mechanical extract ventilation to homes in accordance with BRE digest 398.

Coding:

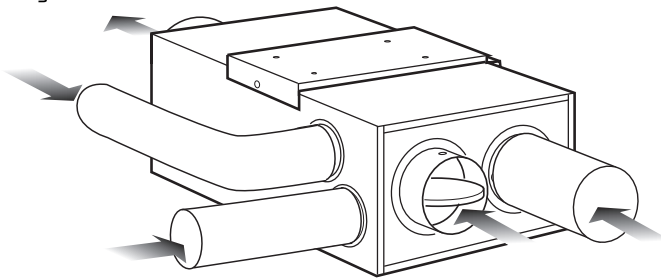
Two units are available as standard.

Unit codes/descriptions are as follows:

MEV	Single fan unit.
MEV-S	Single fan unit with Run-on Timer.

The case is constructed in aluminium/zinc coated steel. Internal faces of the casing are acoustically lined with flame retardant acoustic foam. The full length access cover which is located on the underside of the unit, on the opposite side to the mounting bracket, is retained by four M5 screws.

Figure 1.



2.0 Installation

Installation must be carried out by competent personnel in accordance with the appropriate authority and conforming to all statutory and governing regulations.

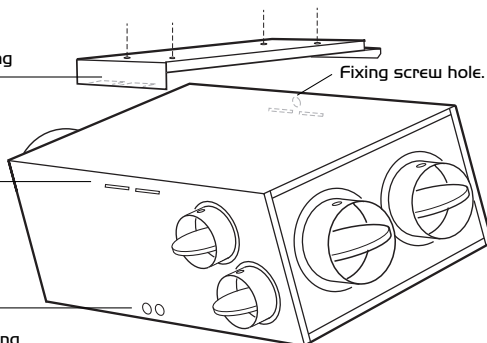
The fan must be fitted indoors, away from sources of water spray or steam generation. The fan can be installed at any angle using the integral mounting bracket supplied (Figure 2).

Figure 2.

Bracket tongues engage with casing slots, then unit rotated up to align with fixing screw hole.

Slots in casing either side of unit to allow alternative mounting option.

2 rubber cable entry grommets either side of casing for external wiring.



It is assumed that a solid non-reverberant mounting position has been selected and the electrical mains wiring and any optional control wires have been made ready.

It is also assumed that compatible ductwork is already installed and ready to be connected to the 125mm dia. discharge spigot and also the chosen 100mm dia and/or 125mm dia. inlet spigots.

Note the unit is not fitted with a backdraught shutter. (When using the continuous background vent facility a backdraught shutter is not needed). However a backdraught shutter is available from Nuaire if required.

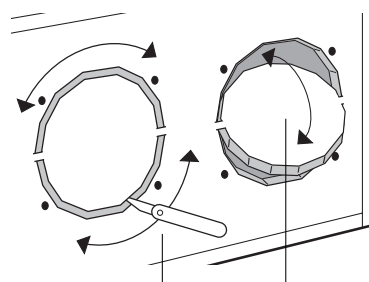
An integral fixing bracket with a single bolt fixing allows easy mounting and removal of the unit when necessary. The unit is supplied with the 125mm dia. discharge spigot for fitting during installation.

2.1 Unit fixing

The integral mounting bracket supplied can be offered up to position, the fixing points marked through and the bracket installed with 4 screws (by others). See figure 2.

Offer the unit into position and locate the bracket into the slots in the case before fixing with the single bracket fixing screw.

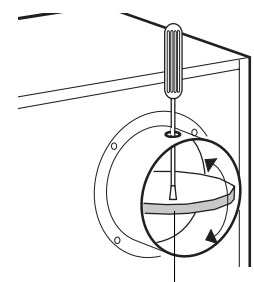
Figure 3.



Cut through the acoustic foam round the circumference of the damper.

Damper can be swivelled on the 2 body casing hinges.

Figure 4.



When spigot is in position, damper can be adjusted using a screwdriver.

Various damper/inlet spigot positions can be utilised as required to suit the system ductwork and extract grilles. All inlet dampers are 'closed' as knockouts when delivered but can be opened using a sharp knife. (See figure 3). After the spigot has been fixed adjust the damper with a screwdriver. (See figure 4).



Nuaire Home Ventilation Western Industrial Estate Caerphilly United Kingdom CF83 1NA
Telephone: 08705 002555 Facsimile: 08705 002666
Email: info@nuaire.co.uk www.nuaire.co.uk

The spigot locations are as follows:

Two x 125mm inlet end spigots.

Two x 100mm inlet spigots on LH side of case.

Two x 100mm inlet spigots on RH side of case.

One x 125mm discharge end spigots.

Any, or all of these inlets can be utilised with individual volume control being available via the relevant damper.

A filter frame with a replaceable filter is 'push fit' located inside the case which is easily removed for cleaning following removal of the case cover.

Please note a clear space of at least 470 x 320mm is required to allow the cover to be removed and provide sufficient access for maintenance.

The fan is designed to run continuously in the TRICKLE mode with occasional BOOST airflow (high speed setting) as and when required.

The degree of extract from each room served can be adjusted with the inlet balancing spigots.

The unit is provided with adjustment for the TRICKLE speed and BOOST speed ventilation rate as required.

2.2 Electrical connection

With the unit fixed in position and working from underneath the installation bring the external wiring through the chosen rubber cable entry grommet (two either side, see figure 5).

Installation must be carried out by competent persons in accordance with current I.E.E. regulations.

The unit must be wired via a 3 pole fan isolation switch.

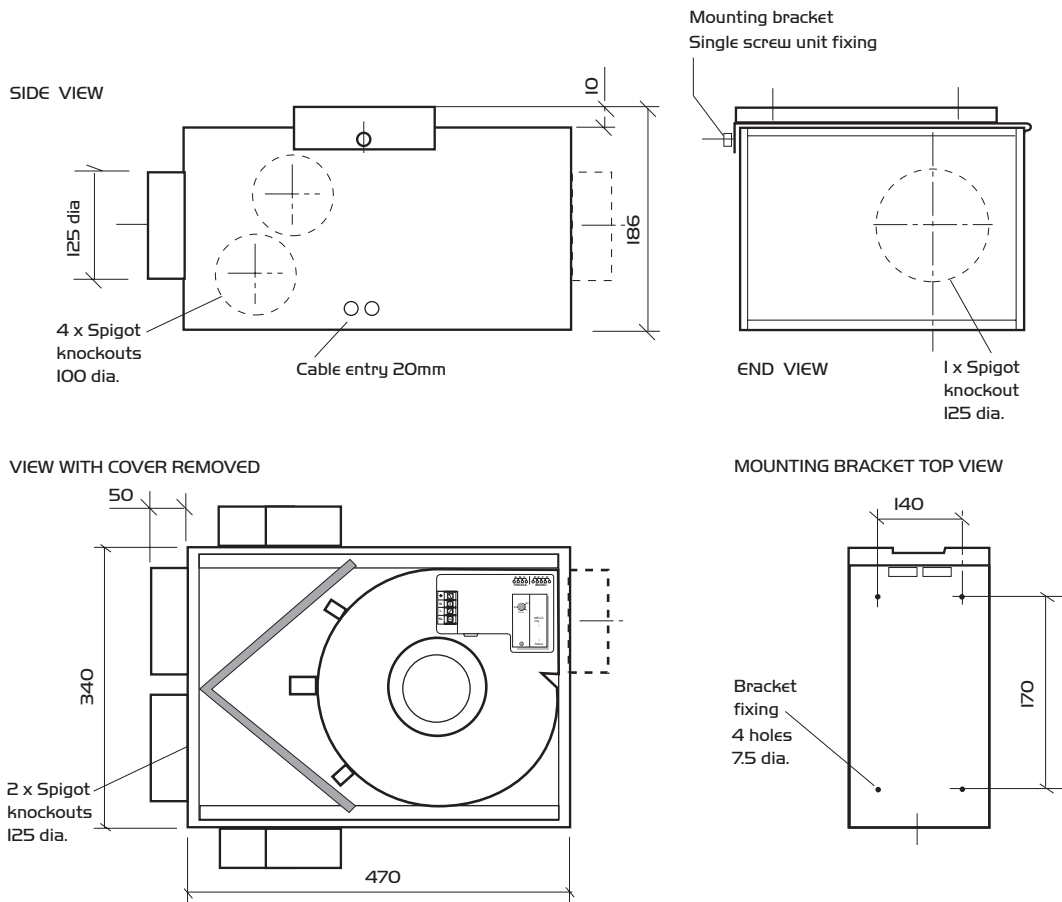
The unit **MUST** be Earthed.

IMPORTANT

Isolation - Before commencing work make sure that the unit and Nuaire control are electrically isolated from the mains supply.

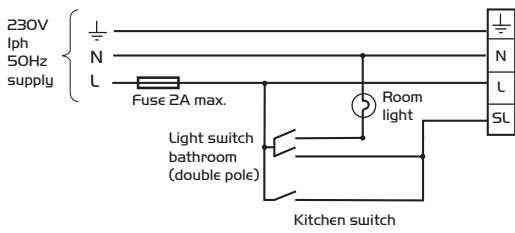
3.0 Dimensions

Figure 5. Dimensions in mm.

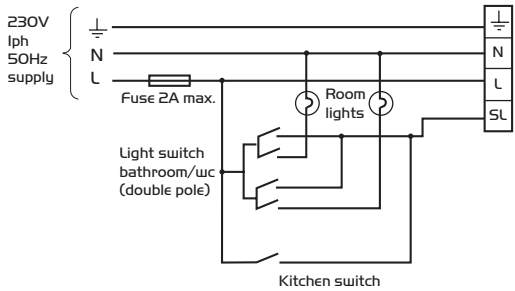


4.0 Electrical Wiring

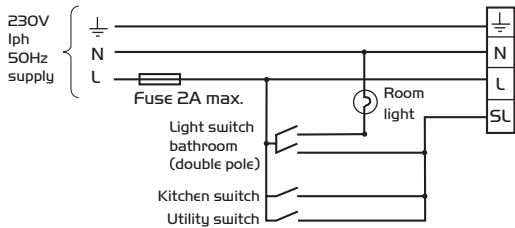
Unit serving Kitchen and Bathroom Figure 6.



Unit serving Kitchen and two Bathrooms



Unit serving Kitchen and Utility and Bathroom



5.0 Fan Speed

Units are supplied configured to run on speeds 1 and 3. To change the duty the links may be removed and refitted to the other positions. (See table 1).

Figure 7. Circuit Board Connections.

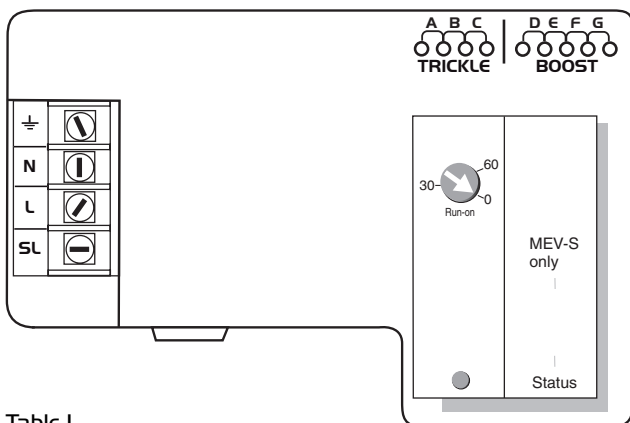


Table 1.

TRICKLE	BOOST
SPEED 1-Link B (As supplied)	SPEED 3-Link D & F (As supplied)
SPEED 2-Link C	SPEED 4-Link G
SPEED 3- Link A & C	SPEED 4-Link G

5.1 Run-on Timer (MEV-S)

The Run-on timer adjustment is from 0 - 60 min. Run-on is only available from the switched live (SL) signal.

6.0 Maintenance

It is inevitable that even with filtered extract grilles as recommended in BRE digest 398 some dust, fluff etc. will pass through the filter, and which, if allowed, will build up internally on motors and impellers, shortening the life of the unit and, in severe cases, leading to overheating of the motors.

Consequently, it is strongly recommended that all units are inspected and cleaned every six months. To clean the filter, isolate the unit, remove lid, then remove the filter from the unit and wash in tepid water to which a little mild detergent has been added. Shake out excess water and allow to dry naturally. Replace when dry.

7.0 Cleaning

Remove covers and carefully clean out interiors as necessary. Check for damage and security of components. Refit covers.

8.0 Replacement of Parts

Should any component need replacing Nuaire keep extensive stocks for quick delivery. Ensure that the unit is electrically isolated, before carrying out any work.

When ordering spare parts, please quote the serial number of the unit and the ARC number of the purchase if possible. (This information will be available on the fan label).

9.0 Warranty

The 5 year warranty starts from the day of delivery and includes parts and labour. This warranty is conditional on planned maintenance being undertaken.

10.0 Service Enquiries

Nuaire can assist you in all aspects of service. Our service department will be happy to provide any assistance required, initially by telephone and If necessary arrange for an engineer to call.



**Customer Services Department
on 08705 002 555**

DECLARATION OF INCORPORATION AND INFORMATION FOR SAFE INSTALLATION, OPERATION AND MAINTENANCE

We declare that the machinery named below is intended to be assembled with other components to constitute a system of machinery. The machinery shall not be put into service until the system has been declared to be in conformity with the provisions of the EC Council Low Voltage Directive.

Designation of machinery: MEV
Machinery Types: Continuous Extract Ventilation Unit
Relevant EC Council Directives: 73/23/EEC (Low Voltage Directive)
Applied Harmonised Standards: EN60204-1, EN60335-2-80
Applied National Standards: BS848 Parts One, Two and Five

Signature of manufacture representatives:



Name:	Position:	Date:
1) C. Biggs 	Technical Director	23. 12. 02
2) W. Glover 	Manufacturing Director	23. 12. 02

DECLARATION OF CONFORMITY

We declare that the machine named below conforms to the requirements of EC Council Directives relating to Electromagnetic Compatibility and Safety of Electrical Equipment.

Designation of machinery: MEV
Machinery Types: Continuous Extract Ventilation Unit
Relevant EC Council Directives: 89/336/EEC, 92/31/EEC (EMC)
 73/23/EEC, 93/68/EEC (Low Voltage Directive)
Applied Harmonised Standards: EN55014-1, EN55014-2,
 EN60204-1, EN60335-2-80
Basis of Self Attestation: Quality Assurance to BS EN ISO 9001
 BSI Registered Firm
 Certificate No. FM 149

Signature of manufacture representatives:

Name:	Position:	Date:
1) C. Biggs 	Technical Director	23. 12. 02
2) W. Glover 	Manufacturing Director	23. 12. 02

INFORMATION FOR SAFE INSTALLATION, OPERATION AND MAINTENANCE OF NUAIRE VENTILATION EQUIPMENT

To comply with EC Council Directives 73/23/EEC Low Voltage Directive

To be read in conjunction with the relevant Product Documentation (see 2.1)

1.0 GENERAL

- 1.1 The equipment referred to in this Declaration of Incorporation is supplied by Nuairé to be assembled into a ventilation system which may or may not include additional components.
 The entire system must be considered for safety purposes and it is the responsibility of the installer to ensure that all of the equipment is installed in compliance with the manufacturers recommendations and with due regard to current legislation and codes of practice.

2.0 INFORMATION SUPPLIED WITH THE EQUIPMENT

- 2.1 Each item of equipment is supplied with a set of documentation which provides the information required for the safe installation and maintenance of the equipment. This may be in the form of a Data sheet and/or Installation and Maintenance instruction.
 2.2 Each unit has a rating plate attached to its outer casing. The rating plate provides essential data relating to the equipment such as serial number, unit code and electrical data. Any further data that may be required will be found in the documentation. If any item is unclear or more information is required, contact Nuairé.
 2.3 Where warning labels or notices are attached to the unit the instructions given must be adhered to.

3.0 TRANSPORTATION, HANDLING AND STORAGE

- 3.1 Care must be taken at all times to prevent damage to the equipment. Note that shock to the unit may result in the balance of the impeller being affected.
 3.2 When handling the equipment, care should be taken with corners and edges and that the weight distribution within the unit is considered. Lifting gear such as slings or ropes must be arranged so as not to bear on the casing.
 3.3 Equipment stored on site prior to installation should be protected from the weather and steps taken to prevent ingress of contaminants.

4.0 OPERATIONAL LIMITS

- 4.1 It is important that the specified operational limits for the equipment are adhered to e.g. operational air temperature, air borne contaminants and unit orientation.
 4.2 Where installation accessories are supplied with the specified equipment eg. wall mounting brackets. They are to be used to support the equipment only. Other system components must have separate provision for support.
 4.3 Flanges and connection spigots are provided for the purpose of joining to ductwork systems. They must not be used to support the ductwork.

- 4.4 In the event of RF interference the fan may increase in speed or make high pitched noises. This is normal and will have no adverse effect on the fan. The speed and noise will return to normal once the interference has subsided.

5.0 INSTALLATION REQUIREMENTS

- In addition to the particular requirements given for the individual product, the following general requirements should be noted.
 5.1 Where access to any part of equipment which moves, or can become electrically live are not prevented by the equipment panels or by fixed installation detail (eg ducting), then guarding to the appropriate standard must be fitted.
 5.2 The electrical installation of the equipment must comply with the requirements of the relevant local electrical safety regulations.

6.0 COMMISSIONING REQUIREMENTS

- 6.1 General pre-commissioning checks relevant to safe operation consist of the following:
 Ensure that no foreign bodies are present within the fan or casing.
 Check electrical safety. e.g. Insulation and earthing.
 Check guarding of system.
 Check operation of Isolators/Controls.
 Check fastenings for security.
 6.2 Other commissioning requirements are given in the relevant product documentation.

7.0 OPERATIONAL REQUIREMENTS

- 7.1 Equipment access panels must be in place at all times during operation of the unit, and must be secured with the original fastenings.
 7.2 If failure of the equipment occurs or is suspected then it should be taken out of service until a competent person can effect repair or examination. (Note that certain ranges of equipment are designed to detect and compensate for fan failure).

8.0 MAINTENANCE REQUIREMENTS

- 8.1 Specific maintenance requirements are given in the relevant product documentation.
 8.2 It is important that the correct tools are used for the various tasks required.
 8.3 If the access panels are to be removed for any reason the electrical supply to the unit must be isolated.
 8.4 A minimum period of two minutes should be allowed after electrical disconnection before access panels are removed. This will allow the impeller to come to rest.
NB: Care should still be taken however since airflow generated at some other point in the system can cause the impeller to "windmill" even when power is not present.
 8.5 Care should be taken when removing and storing access panels in windy conditions.

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.