

MEV-M units

Continuous Mechanical Extract Ventilation Units

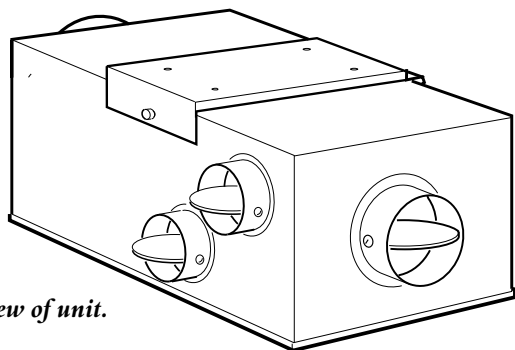


Fig. 1.
General view of unit.

NOTE:
THIS UNIT IS DELIVERED WITH THE BLOWER SECTION PACKED 'LOOSE' INSIDE THE CASE FOR FIXING SEE PAGE 2

Introduction

NuAire's MEV-M units are designed to be installed into ductwork above the area to be ventilated (usually in the ceiling void). The units provide mechanical extract ventilation for homes in accordance with BRE digest 398. Single, twin and dual fan units are available

The case is constructed in galvanised steel. Internal faces of the casing are acoustically lined. The full length access cover is retained by four screws. An integral fixing bracket with a single screw fixing allows easy mounting and removal of the unit when necessary. The unit is delivered with the 200mm dia discharge spigot fitted.

Various 'knockout' inlet spigot positions can be utilised. All inlet spigots are 'closed' as knockouts when delivered. A full kit of inlet spigots with integral balancing dampers is supplied bagged separately.

The inlet spigot locations are as follows:

One x 150mm end knockout.

Two x 100mm knockouts on LH side of case.

Two x 100mm knockouts on RH side of case.

Any, or all, of these inlets can be utilised. User removes the knockout(s) and fits the balancing spigot(s) supplied.

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.

The fan is designed to be wired direct to the mains supply through a fused spur isolator (by others) and run continuously in the NORMAL mode (which is the low speed or trickle ventilation setting). 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 (low speed or NORMAL) and high speed (BOOST) ventilation as standard. The NORMAL speed adjustment has a range of 0% to 50%.

The unit is delivered with the NORMAL speed adjustment set to 0%. **Note: the NORMAL speed must be set to 25% by the installer.**

An adjustment of 50 -100% is provided for the 'BOOST' duty setting to reduce performance if necessary.

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IMPORTANT WARNING

Installation and servicing **MUST** be carried out by electrically qualified personnel.
The unit **MUST BE TOTALLY ISOLATED** from the electrical supply before removing covers.
NOTE internal input socket will be exposed and **MAY BE LIVE** with the fan module removed.
See 'ISOLATION' notes.

The unit is delivered with the BOOST speed adjustment set to 100%. (See the adjustments information on page 3). A manual remote switch is provided to activate the NORMAL and BOOST functions (see fig. 2).

Provision is also made for the wiring in of an optional remote fail indicator (not supplied). Order item HVCT-AVI.

Coding

MEV-M	Single fan unit
MEV-2M	Twin fan unit (with auto duty sharing)
MEV-M+	Dual fan unit (both fans continuous running)

Duty

Units are available with one or two fans and with the following duties:

100 l/s (MEV-M & MEV-2M)

The MEV-M has a single fan and delivers 100 l/s

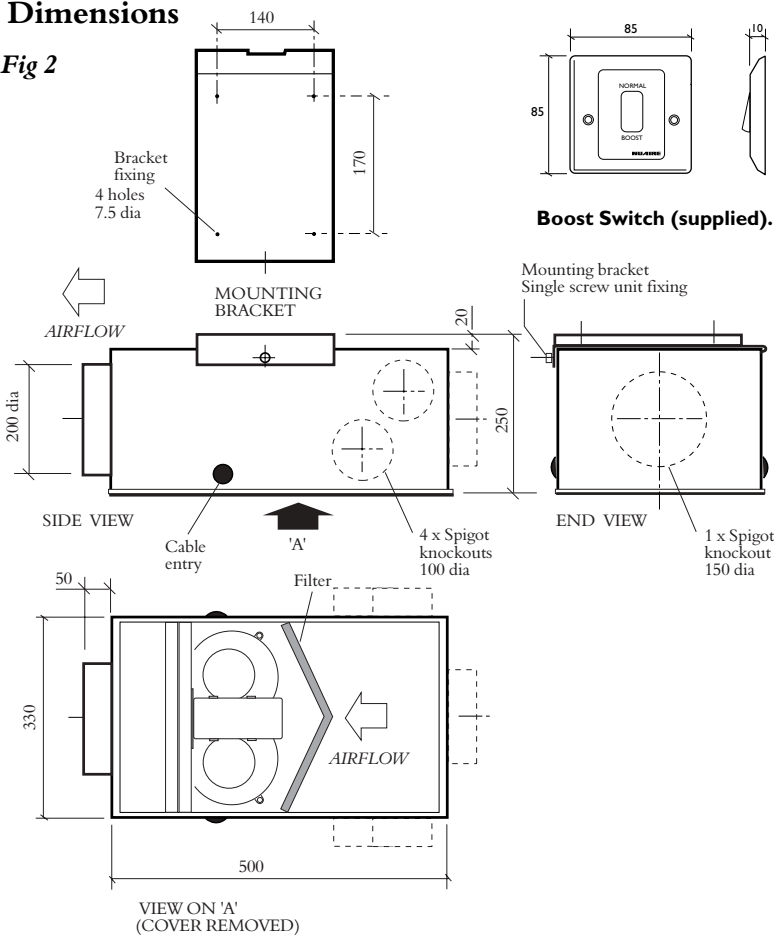
The MEV-2M has two fans and delivers 100 l/s with automatic duty sharing to extend unit operational life. Also the unit will switch to the 'standby' fan in the event of a fan failure.

150 l/s (MEV-M+).

The MEV-M+ has two fans which run continuously and deliver 150 l/s. In the event that one fan fails, the other will still deliver 100 litres as a single fan until the unit is serviced.

Dimensions

Fig 2



Boost Switch (supplied).

Weights	
MEV-M	11 kg
MEV-2M	12 kg
MEV-M+	12 kg

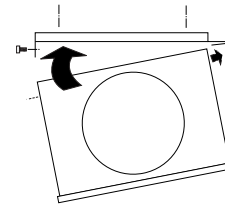


Fig 3 Installing the unit into the fixed bracket.

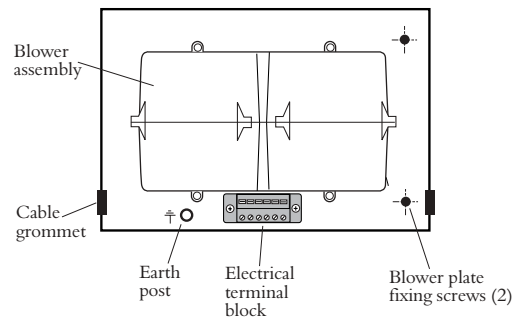


Fig 4 Internal view. Control module has been removed to access the terminal block

Installation

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

It is also assumed that compatible ductwork is already installed and ready to be connected to the 200mm dia outlet and also the chosen 150mm dia and/or 100mm dia. inlets. Note the unit is not fitted with a backdraught shutter. (When using the trickle vent facility a backdraught shutter is not needed). However a backdraught shutter is available from NuAire if required.

Fitting the blower(s).... see fig. 6

ON DELIVERY IT WILL BE NECESSARY TO FIT THE MOTOR PLATE COMPLETE WITH THE BLOWERS TO THE PLENUM PLATE.

Remove the cover. Withdraw the filter assembly from the case (push fit). Lift out the loose blower assy. Remove the two motor plate retaining screws located in the plenum plate. These will be required to fix the motor plate. in position. Refer to Fig. 6.

Locate the bottom of the motor plate into the channel in the bottom of the case (C) Swing up the motor plate flush to the plenum (B) Fix with the two retaining screws (A)

Fit the filter assy.

Spigot fixing

Note it is important to have the cover screwed in position prior to knocking out 100 and 150mm dia. inlets. Without the cover fixed in position the case could be distorted during this operation. Select the chosen size balancing spigots and fix to the case using the holes provided.

Unit fixing

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

Offer the unit into position and locate the bracket into the slots in the case before fixing with the single bracket fixing screw. (See fig 3) Connect the ductwork to the inlet and outlet spigots

Electrical connection

With the unit fixed in position and working from underneath the installation, remove the unit cover, retained by 4 screws. Bring the external wiring through the chosen rubber cable entry grommet (one either side, see fig 2).

It may be found easier to remove the terminal block from the case (2 screws) to connect external wiring. (see fig 4). To gain

access to the terminal block, pull out the electronic control module approx. 15mm to disengage the electrical spade contacts, disconnect the motor wiring plug(s) from the module and temporarily remove the control module. The block can now be removed (2 screws) to facilitate the connection of the wiring.

The earth wire MUST be connected to the Earth post provided next to the terminal block. (Fig 4). Note that no earth is required to the terminal block.

Refer to the electrical wiring diagrams before connecting the unit. **NOTE THAT THE MAINS WIRING FOR THE UNIT MUST BE FROM A FIXED WIRING INSTALLATION.**

Connect the wires as shown in the diagram and refit the terminal block. Locate the control module into the blowers moulded guides and push the module into the terminal block, engaging the spade connectors.

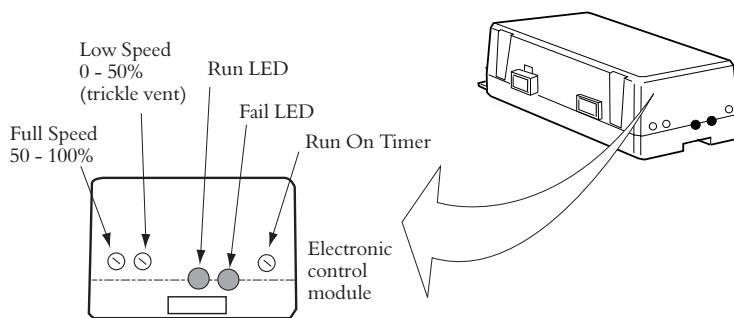


Fig 5 Control module adjustments

Adjusting the Full Speed (BOOST)

ENSURE THE UNIT IS ISOLATED BEFORE REMOVING THE COVER

All the control functions and adjustments are located on the Electronic Control Module

The 'Full Speed' adjustment is located on the Electronic Control Module see fig 5. The adjustment range is 50 - 100% speed. Set to 100% for optimum performance.

Note the screw adjustment is pre-set at the factory to full speed (100%).

The performance of the unit can be reduced if required by rotating the screw anti-clockwise. (Fully anti-clockwise will give 50% of the available duty).

Using and adjusting the Low Speed (NORMAL) trickle ventilation

ENSURE THE UNIT IS ISOLATED BEFORE REMOVING THE COVER

The 'Low Speed' adjustment (used for trickle ventilation) is located on the Electronic Control Module see fig 5.

The adjustment range is 0 - 50% speed.

Note the screw adjustment is set at the factory to zero and MUST BE SET TO A MINIMUM OF 25%

The remote switch connection must be made in order to use the 'BOOST' facility. The switch terminals are numbered 3 & 1 on the terminal block. See wiring diagram on page 4.

Run On Timer (not used)

A Run On Timer adjustment is also located on the Electronic Control Module (see fig 5). Its function is not required for this unit.

Note the unit is delivered with the Run On timer screw set to zero.

THE RUN ON FACILITY IS NOT REQUIRED IN THESE APPLICATIONS AND SHOULD BE LEFT SET AT ZERO.

Removing the blower(s) see fig.6

Assuming that the control module has been unplugged from the terminal block, the external electrical wiring disconnected and the complete unit removed from the installation.

1. Withdraw the filter assembly from the case
2. Unscrew the two motor plate retaining screws (A).
3. Allow the upper edge of the plate to drop away from the fixed plenum plate to clear the other fixings (B).
4. Pull the motor plate assembly up out of the locating channel in the bottom of the case and remove the assembly

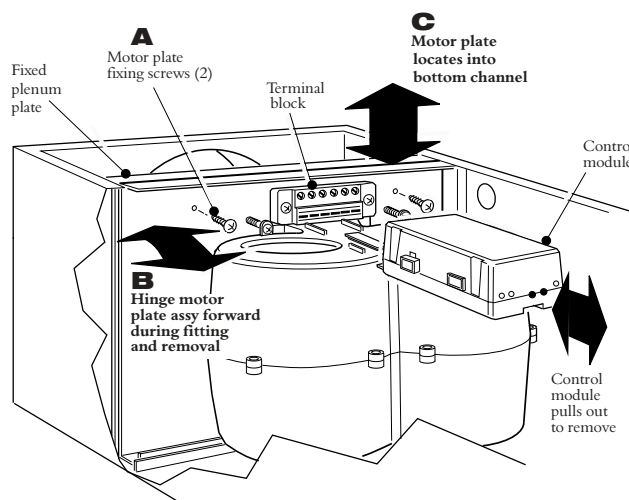


Fig 6 Fitting / removing the motor plate assembly

Audio Visual Fault Indicator (optional).

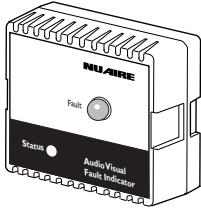


Fig 7 HVCT-AVI

Code: HV CT-AVI

In the event of a fan failure the device shows a visual red light and an internal sounder is activated. Supplied with a 10 metre connecting cable which plugs into the fan control module. The CT-AVI does not wire into the terminal block inside the fan. It is supplied with a pre-plugged 10 metre cable. This cable plugs into matching 4 way sockets fitted in the CT-AVI and fan control module

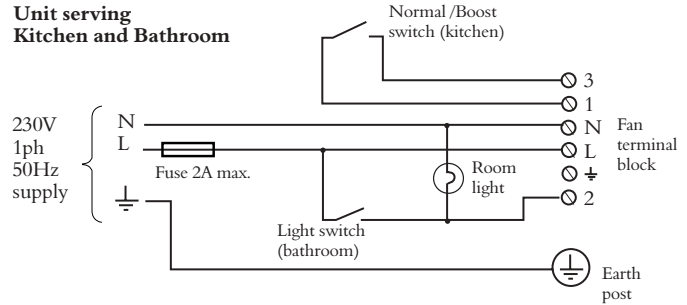
Unit Wiring

FULL SPEED OPERATION WITH TRICKLE VENTILATION (fig 8)

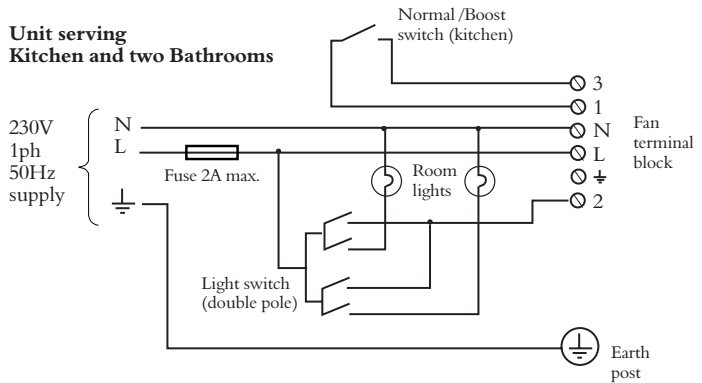
Wiring for full speed operation with trickle ventilation

Note: Trickle vent (NORMAL) adjustment screw on Electronic Control Module must be set to a minimum of 25% and full speed (BOOST) set to 100%

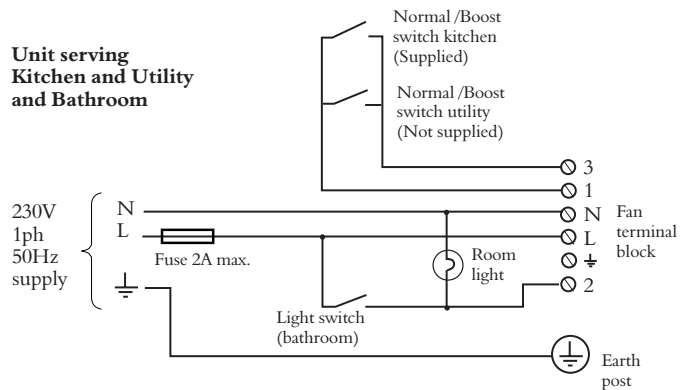
Unit serving Kitchen and Bathroom



Unit serving Kitchen and two Bathrooms



Unit serving Kitchen and Utility and Bathroom



Electrical Data

Unit power consumption (watts) @ full speed

MEV-M	.....	100 watts
MEV-2M	.....	100watts
MEV-M+	.....	200watts

Full load current (amps).

MEV-M	.....	0.39 amps
MEV-2M	.....	0.39 amps
MEV-M+	.....	0.78 amps

Fig 8 Wiring for various unit applications.

NUAIRE

CE DECLARATION OF CONFORMITY



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JULY 2001

*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 :-	CONTINUOUS VENTILATION UNITS
Machinery Types :-	MEV-M, MEV-2M, MEV-M+
Relevant EC Council Directives :-	89/336/EEC, 92/31/EEC (EMC) 73/23/EEC, 93/68/EEC (Low Voltage Directive)
Applied Harmonised Standards :-	E50081-1, EN50082-1, 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	2. 7. 01
2)	 W. Glover	Manufacturing Director	2. 7. 01

Maintenance

General

It is inevitable that 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, remove 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.

Isolation

Ensure that the unit is totally isolated from the electrical supply. This is particularly important when dealing with a run-on circuit AS INPUT SOCKET TERMINALS WITHIN THESE UNITS REMAIN LIVE, EVEN WHEN THE ROOM LIGHT OR OTHER ACTUATING SWITCH IS OFF. Take care therefore when working within the case with the fan module removed.

Procedure for inspection & cleaning

See 'Removing the Blower assembly' Inspect all parts. With a brush or dry cloth clean the backplate. Lightly brush away dust and dirt from the fan module. If stubborn debris persists, carefully remove with a suitable blade or scraper. Wash the cover in warm soapy water. Dry thoroughly. Refit the fan module and electronic module followed by the cover. Test/run the unit.

Spares

OPUS MEV single & twin fans

ITEM	PART No.
Filter (all units).	040689
ELECTRONIC CONTROL MODULE	
Single fan MEV-M	772270
Twinfan MEV-2M	772271
Dual fan MEV-150M	772272
BLOWER ASSEMBLIES	
MEV-M single fan units	772273
MEV-2M twin fan units	772274
MEV-150M twin fan units	772274

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.

NUAIRE Home Ventilation

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Leaflet No. 671123

Service

As a manufacturer NuAire provides you with factory trained Service Engineers.

Our Engineers are supported by a comprehensive range of spare parts 'off the shelf'.

If you are an industrial or commercial user, you may be interested in details of NuAire's regular maintenance Service Contracts. This is a worthwhile service that helps you get the most from our products.

Our Service Department will be happy to give you more information.

Telephone: **029 2085 8585**

Controls Application Service (CAS)

A team of Engineers and technicians is available to provide pre and post order support.

We are on hand to provide help and advice from the most basic use of any NuAire equipment to the more complex applications, maximising on the versatility of our SMART and NetLink control products.

Telephone: **029 2085 8585**

Facsimile: **029 2085 8586**

3 Year Warranty

The three year warranty starts from the date of delivery and includes parts and labour for the first year.

The labour element is subject to full, free and safe access to the equipment as recommended by the CDM regulations.

The remaining two years covers replacement parts only.

NOTE:

Installation & Maintenance of the equipment must be as directed in the instructions provided with the unit.

NB

If you have any comments or queries on any of our products or services please write to the Product Information Manager at the main address opposite

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