

## envirovent MEV 160 Mechanical Extract Ventilation Installation Guide

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AFTER INSTALLATION THE END USER SHOULD KEEP THIS GUIDE FOR FUTURE REFERENCE  
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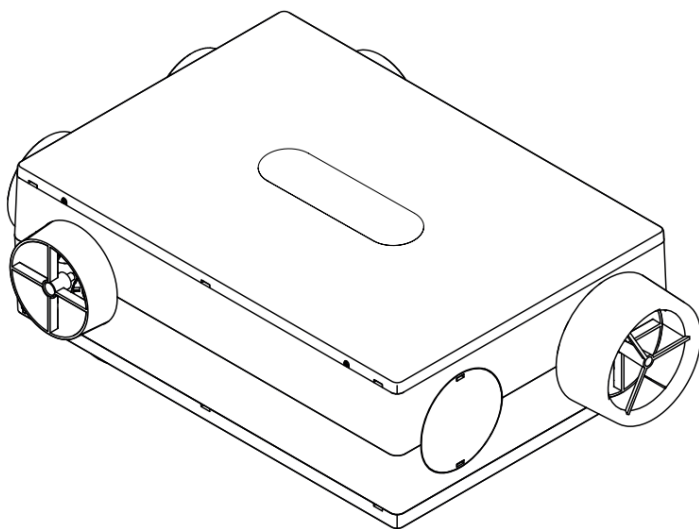
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## MEV 160 & MEV 300

### INSTALLATION GUIDE



### SAFETY

Read and understand these instructions before beginning installation. The unit should be installed by a competent person.

### LOCATION

Check there is space for the unit in your chosen location including room for access and future servicing of the unit. The unit must not affect the operation of open-flue appliances. Consider the external vent locations in relation to open-flues from appliances e.g. boilers. The unit should not be installed in wet rooms.

## USERS

This unit can be used by children above 8 years and by people with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been instructed on the safe use of the unit and they understand the hazards involved. Children must not play with the unit. Cleaning and user maintenance must not be performed by children without supervision..

## ELECTRICAL CONNECTION

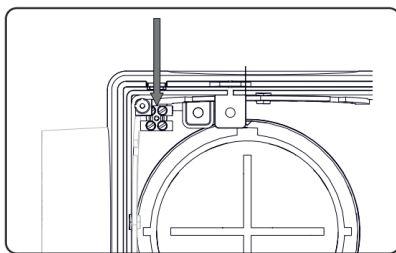
All wiring must comply with Building Regulations and the current IET Wiring Regulations (BS7671 in the UK) or equivalent standards for other countries. The final installation should be examined and tested by a qualified electrician. The unit requires a continuous electrical power supply. Connection to the fixed wiring must be made outside the unit in a suitable location. The unit must be able to be disconnected from the mains supply after installation. The unit must be earthed and a double pole switch with minimum contact separation of 3.0mm must be used to provide isolation for the unit (see the wiring diagram on page 2). The power supply cable running into the unit must remain the supplied flexible cable (not a solid core twin and earth cable). If the power supply cable becomes damaged, it must be replaced by EnviroVent, an authorised service agent for your region/country, or a similarly qualified person in order to avoid a hazard. Do not remove or tamper with any electronic components inside the product.

This product is not suitable for use with a Type AC RCD

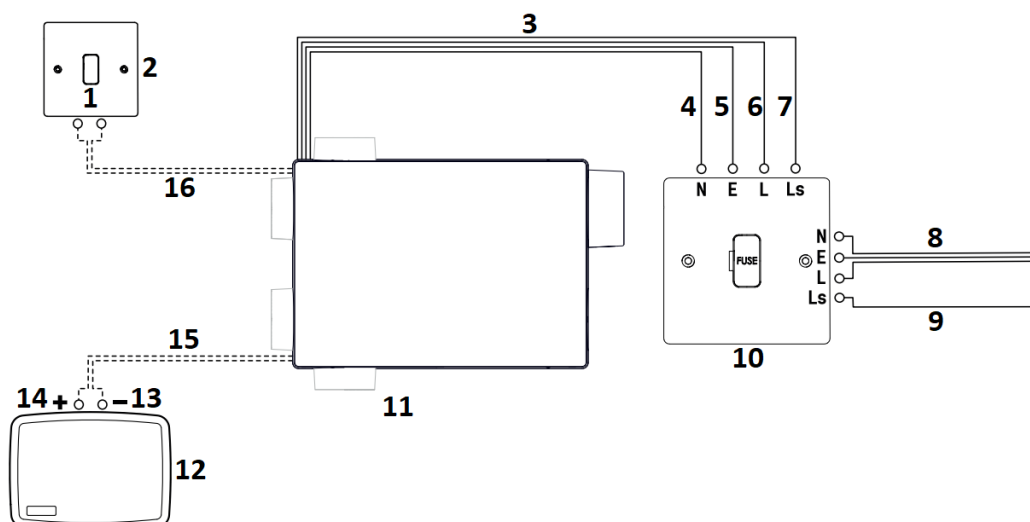


## DIAGRAMS

### WIRING DIAGRAM



Cable block location for 0-10V or volt free input.



1. BOOST
2. **HARDWIRED BOOST SWITCH**  
(STANDARD UNITS ONLY)
3. **POWER CABLE**
4. BLUE
5. GREEN & YELLOW
6. BROWN
7. BLACK
8. **MAINS SUPPLY**  
(230V 50/60Hz)
9. **SWITCH LIVE**  
(OPTIONAL)
10. **LOCAL ISOLATOR**
11. **VENTILATION UNIT**
12. **0-10V CONTROL INPUT DEVICE**  
(OPTIONAL)
13. **(BLUE)**
14. **(RED)**
15. **0-10V INPUT CABLE**  
(RC UNIT ONLY)
16. **VOLT FREE INPUT**  
(STANDARD UNITS ONLY)

The local isolator must be connected to the mains as part of the fixed wiring. Connect the cores of the power cable to the matching terminals on the local isolator.

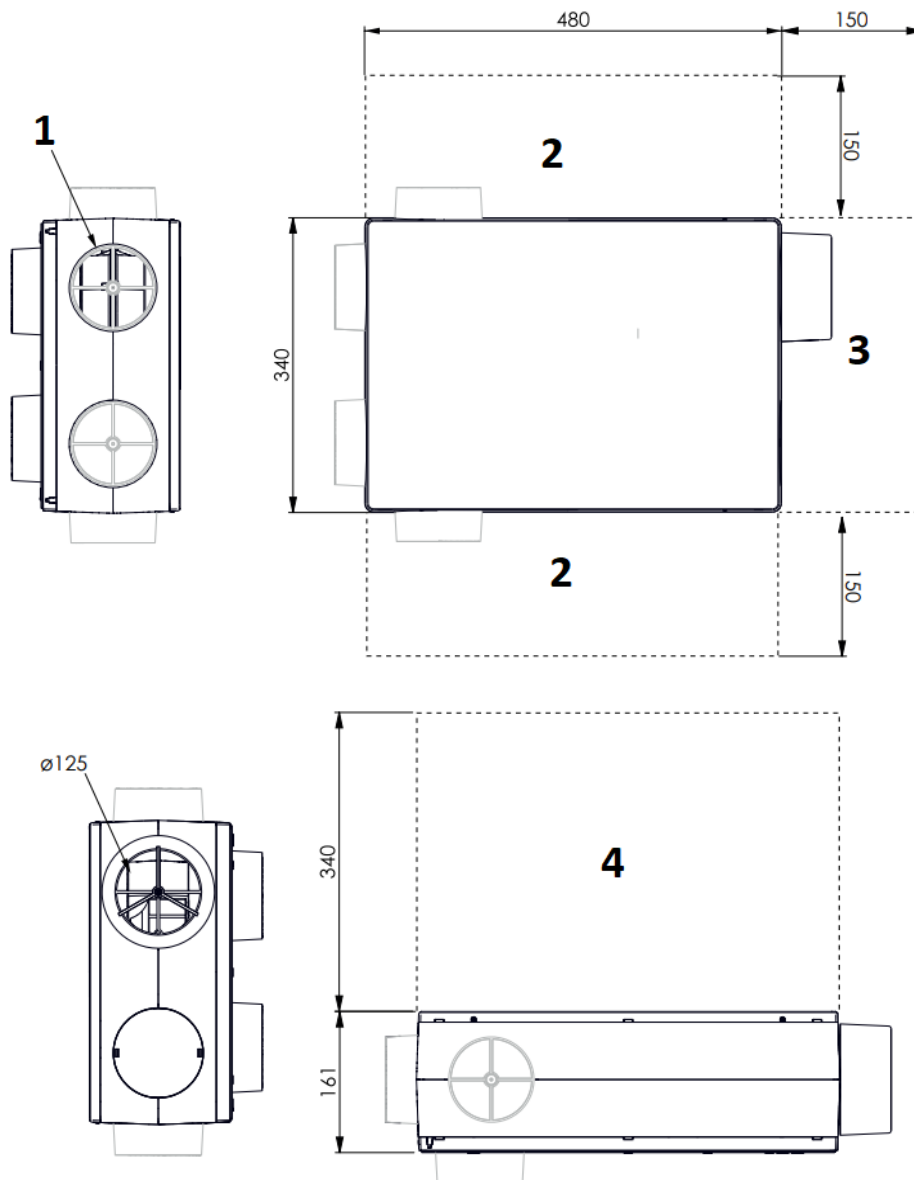
The black switch live core of the mains cable can be wired to a switch input such as a room light switch, when the switch is turned on, the boost function is engaged. When the switch is turned off, the unit will turn to normal running mode. In this configuration a suitable triple pole isolator must be used in line with the local wiring.

Standard units can be connected to the supplied hard wired boost switch via the two-core cable labelled “volt free input”. See installation step 12.

Wireless units can be connected to a 0-10V input device via the terminal block at the end of the two-core cable inside the unit labelled “0-10V input”. See installation steps for further details.

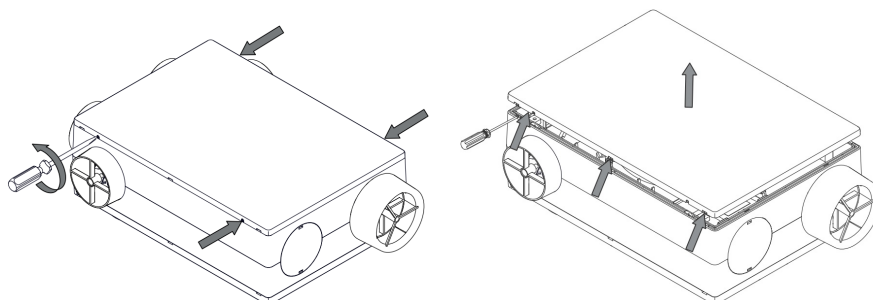
**Do not connect the “volt free input” or ” 0-10V input” cables to the mains power supply.**

## **DIMENSIONS**



1. Spigot packs for ø125mm rigid duct or ø90/75mm Fast Track
2. COVER SCREWS ACCESS AREA
3. CONTROLS ACCESS AREA
4. FRONT COVER ACCESS AREA

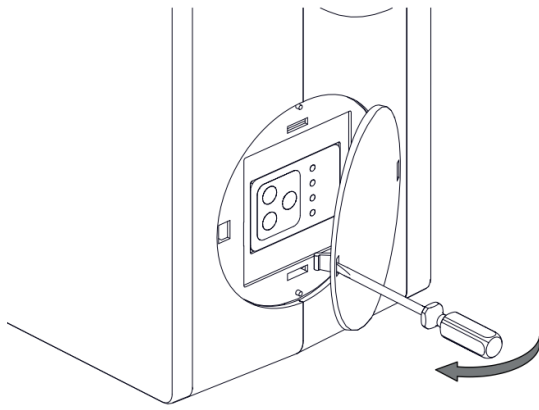
#### **INTERNAL ACCESS** (for cleaning or maintenance)



1. Isolate the unit from the mains power supply.
2. Undo all four screws around the front cover and then use a flat head screwdriver to lift the three clips along the edge of the unit.

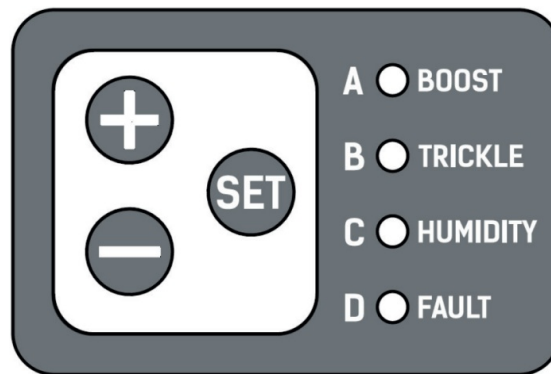
3. Now gently pull the cover away from the unit.

## CONTROL PANEL



screwdriver.

To access the control panel, unclip the cap using a small flat head



## ABOUT THE MEV 160 AND MEV 300

The EnviroVent MEV 160 and MEV 300 are continuous mechanical extract ventilation systems designed to help create a fresh and healthy living environment by drawing humid, stale air out of wet rooms, while minimising the movement of humidity to other rooms.

The units are normally fitted in a central location, with ductwork running from the unit to the kitchen, bathroom, ensuite, utility and other wet zones. The unit provides six possible spigot positions in order to extract air from multiple locations.

The MEV 160 unit is capable of delivering a maximum airflow of 75 l/s (270 m<sup>3</sup>/hr) and a maximum system pressure of 573Pa.

The MEV 300 unit is capable of delivering a maximum airflow of 103 l/s (370 m<sup>3</sup>/hr) and a maximum system pressure of 650Pa.

The Intellitrac® humidity tracking function monitors the humidity levels in the extracted air and will automatically increase the air flow rate when humidity levels rise. Once the humidity falls back to a normal level, the air flow rate will return to the programmed trickle setting.

The MEV 160 and MEV 300 include a switch live function and if used, will enter boost mode whenever a switch live input is engaged.

The MEV 160 and MEV 300 come with either a wired boost switch or wireless remote control.

All MEV 160 and MEV 300 units are covered by a two year warranty.

## BOX CONTENTS

Item Description	Quantity
MEV 160 or 300 unit	1
Instruction Guide	1
Wireless Remote Control (Remote Control units only)	1
Wired Boost Switch (standard units only)	1
Spigot packs (125mm duct or fast track)	3
Screws (8g x 2.0")	4
Wall plugs	4
Foam pads	4
Rubber bushings	4
M5 Washers	4

## PRE-INSTALLATION CHECKLIST

- Does the unit and ductwork fit in the space where it will be installed?
- Is there room to connect ducts to the spigots without tight duct bends?
- Are all obstructions cleared in the locations where the extract valves will be fitted?
- Is the mounting surface strong enough to support the unit?
- Is the mounting surface level?

## INSTALLATION

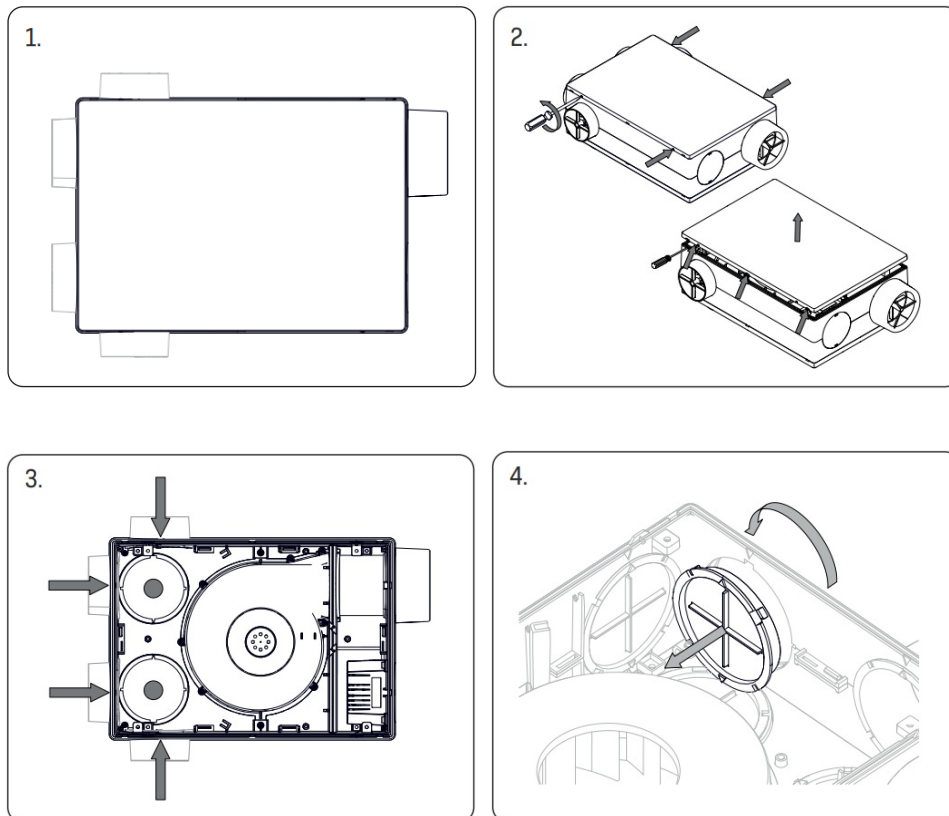
1. Hold the unit up to the chosen location (wall, floor or ceiling) and ensure there is space for ducts and

maintenance access.

**2.** Undo all four screws around the front cover and then use a flat head screwdriver to lift the three clips along the edge of the unit. Now gently pull the cover away from the unit.

**3.** Select up to 3 of the extract spigot locations to be used. If more than three are required (6 max) you will need to order extra spigot packs (see spares on page 15).

**4.** Remove the blanking caps from the chosen positions by twisting them anticlockwise from inside the unit. If using either of the two rear extract spigot locations the circular white stickers should be removed first before removal of the blanking caps.



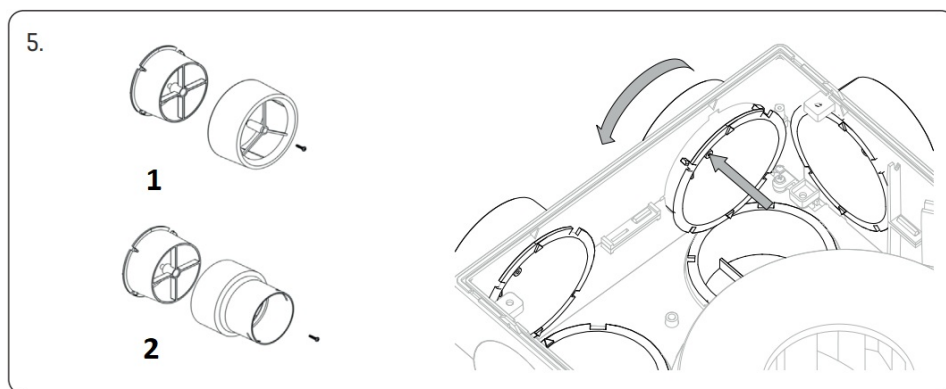
**5.** Insert spigots into each of the required holes and twist them clockwise until they snap into position. Then attach the appropriate connector using the centre screw provided. There are two types of spigot pack available for either 125mm duct or the Fast Track duct system.

**6.** Use the unit as a guide to mark the four main corner fixing holes. Four alternative fixing points are shown in the diagram. These can be used if any of the main corner fixing points are inaccessible.

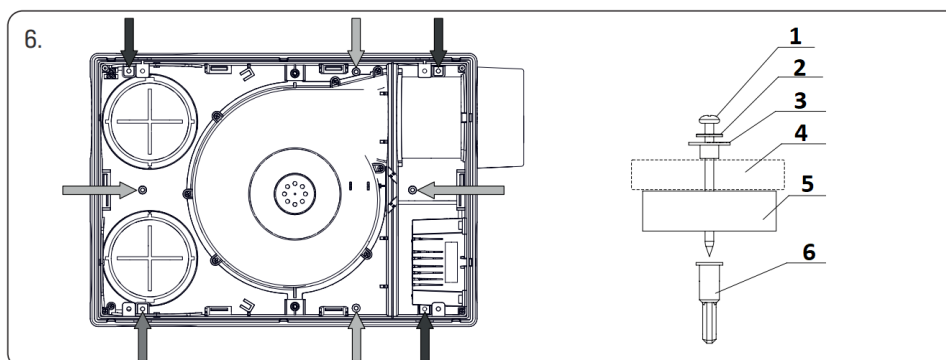
At each fixing point – Stick an adhesive foam pad to the rear of the unit. Then into each fixing point insert a rubber bush, washer and screw as shown in the image below. Then tighten all screws to secure the unit to the mounting surface.

After all the screws are tightened check the unit is securely fastened to the mounting surface.





1. Connector pack – Standard (125mm duct)
2. Connector pack – Fast Track Plus

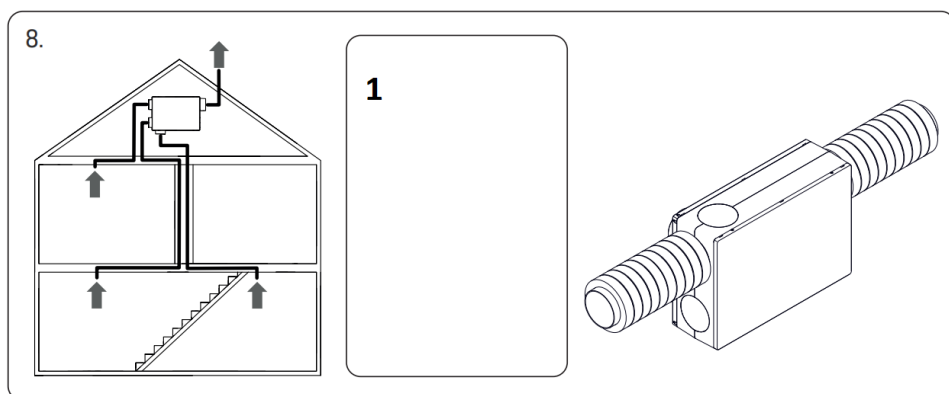
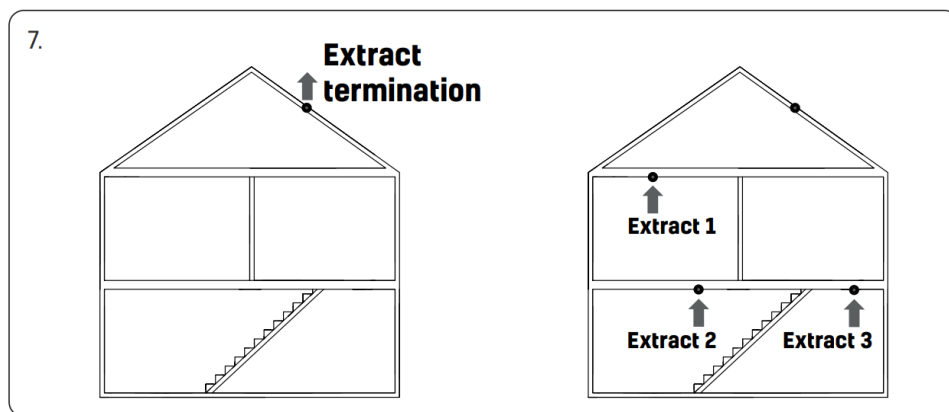


1. Screw
2. Washer
3. Rubber bush
4. Rear cover
5. Foam pad
6. Wall plug

**7.** Fit a suitable low resistance external extract termination e.g. a roof vent or fixed louvre grille.

**8.** Fit adjustable extract valves in the chosen room locations.

**9.** Fit duct between the external termination and the MEV unit. Fit your chosen size of duct between the extract valves and the MEV unit. Ductwork should be fitted in accordance with local regulation and guidance (i.e. ADF 2021 for the UK) and follow any system designs that have been produced for the property. Ductwork through unheated spaces needs to be insulated. For efficiency, all ductwork should be as large a diameter as possible. Envirovent also recommend fitting cone filters to the extract valves.



1. Ducts must be attached securely to the unit to ensure maximum performance.

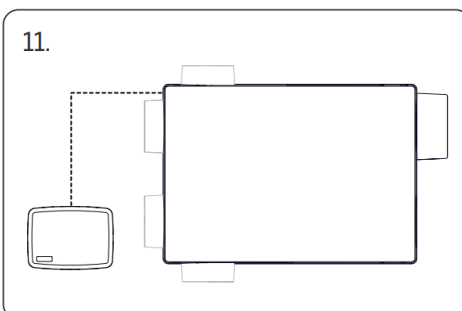
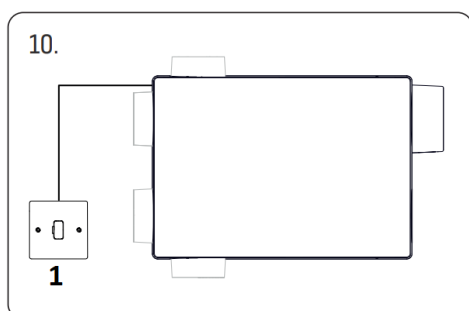
If using rigid duct then a short length (approx. 300mm) of flexible duct should be used for final connection to the unit and to each of the extract valves.

**10.** With the mains supply isolated, wire the unit to the local isolator following the wiring diagram on page 2 and in accordance with the local wiring regulations. When the mains supply is turned on, air will begin flowing through the system after a few seconds.

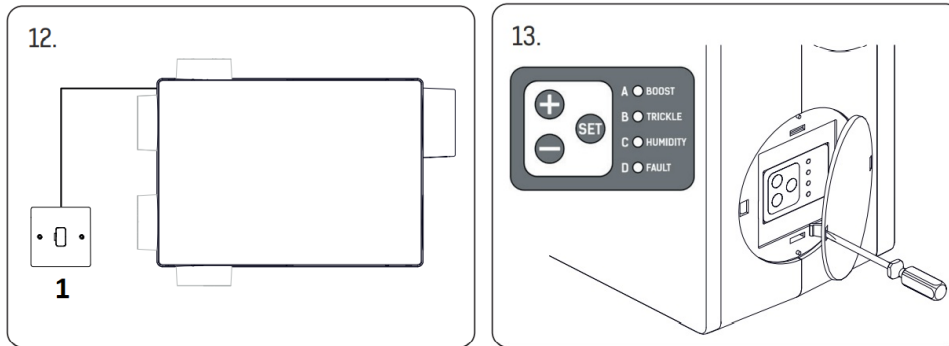
**11.** Wireless units can be connected to an AirSens intelligent IAQ sensor (optional extra) or other 0-10V control device to provide control over the fan speed. Connect it to the terminal block at the end of the cable labelled "0-10V control input" inside the unit. The cable should enter the unit through the notch in the power cable entry slot. (See your chosen device instruction guide for further wiring information).

**12.** Standard units can be connected to the included hardwired boost switch. Connect the switch accessory to the two core cable labelled "volt free input"

**13.** To commission the unit or change settings, unclip the control panel cap using a flat head screwdriver. The keypad is located underneath the cap.



## 1. LOCAL ISOLATOR



## 1. BOOST

### COMMISSIONING

All maintenance and building works should be complete before commissioning this MEV unit. This will avoid any major disturbance to the installation or high volumes of dust or debris being drawn into the system. Do not commission the MEV unit until it is fully installed including power, ductwork, internal valves and external vents.

MEV systems must be commissioned in accordance with Approved Document F of the Building Regulations for England and Wales. Further good practice and advice for the installation of MEV systems can be found in the latest edition of the ADF 2021 for England and Wales. For MEV commissioning guidance in other countries, please refer to the relevant local Building Regulations for that country.

- Determine the required ventilation rates. For guidance see Approved Document F of the building regulations for England and Wales.
- Press the SET button for 4 seconds to enter commissioning mode. (Humidity sensor input is disabled temporarily while the unit is in commissioning mode).
- LED B will light and LED A will flash, indicating that the extract boost flow rate is being modified.
- Fully open all extract valves then measure the air flow rate at all system extract points using a calibrated air flow meter capable of measuring in l/s or m<sup>3</sup>/hr.
- Add the extract rates from all rooms together, then compare this value to the calculated whole building (boost) extract ventilation rate.
- Use the + and – buttons to increase or decrease the flow rate in order to meet the calculated whole building extract ventilation rate. (See Approved Document F). When maximum speed setting is reached, the LED will flash fast. When the minimum speed setting is reached, the LED will flash slowly.
- Now adjust the individual valves to extract at the appropriate rate for each wet room. (Once this step has been completed it may be necessary to adjust the unit boost rate again to account for any increase in pressure). Then lock the valves in position.
- Press the SET button once to move on to the extract trickle flow rate. LED A will light and LED B will flash indicating that the extract trickle flow rate is being modified.
- Again use the + and – buttons to increase or decrease the flow rate in order to meet the calculated whole building (trickle) ventilation rate. (See approved document F).
- When commissioning is complete for the boost and trickle flow rates, press SET for 4 seconds to return to normal running mode. The unit will automatically return to normal running mode after 60 minutes of inactivity.

## **HUMIDITY FUNCTION**

The MEV 160 and MEV 300 both operate at a continuous trickle air flow rate setting. The fan speed will increase if a rise in humidity level is detected.

## **HARDWIRED BOOST SWITCH – (STANDARD UNITS)**

Standard units are supplied with a two-core cable labelled “volt free input” and hard wired boost switch accessory. The boost switch can be mounted in your chosen location then connected to this cable (see page 2 wiring diagram). This will allow the boost airflow rate to be enabled manually.

### **To activate the boost function:**

- Move the switch to the on position.
- The unit will enter boost mode until the switch is returned to the off position.

### **To deactivate the boost function:**

- Move the switch to the off position.
- The unit will return to its normal running mode.

## **WIRELESS REMOTE CONTROL – (WIRELESS UNITS)**

### **To manually activate the boost function**

- Press the button once.
- The green LED will light up and the unit will enter boost mode for 20 minutes then automatically return to normal mode.
- If the switch live connection is turned on then boost cannot be cancelled until the switch live connection is turned off.
- To manually deactivate the boost mode, repeat the above steps.

### **Pairing an extra remote-control:**

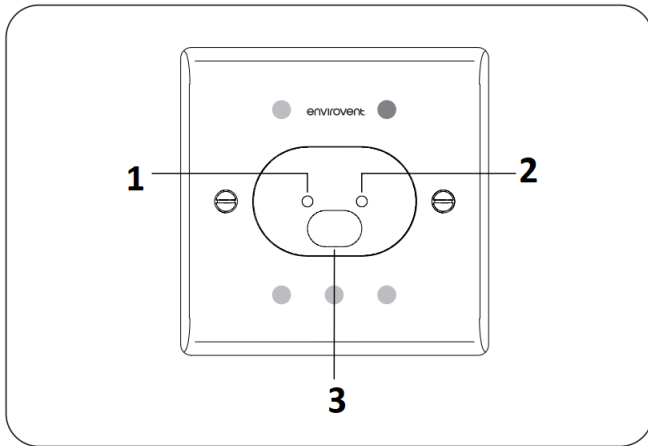
- Turn the unit off at the isolation point.
- Restore the power to the unit. For 20 seconds from restarting, the unit will be in pairing mode.
- Press the button on the new remote control once within the 20 seconds and the remote control will pair to the unit.
- If the pairing has succeeded the green LED will light up.

### **To reset/wipe wireless remote control memory.**

Press the + button on the unit control panel for 10 seconds.

- LEDs A,B,C and D will all flash.
- Press the button on any EnviroVent wireless remote control.

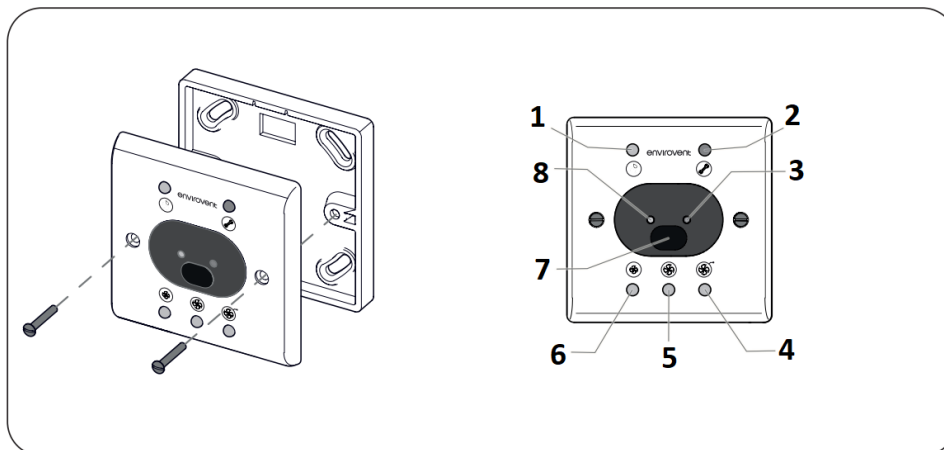
- The memory of any linked wireless remote controls is wiped.



1. Green LED
2. Red LED
3. Remote control button

### Replacing the remote-control battery:

- Undo the two screws and remove the rear casing.
- The battery is located behind the front cover. The remote control requires 1x CR2032 battery.
- Replace the battery, ensuring the correct polarity, then replace the rear cover and screws.  
The switch will remain paired with the unit after battery replacement.
- Dispose of the old battery in a safe manner.

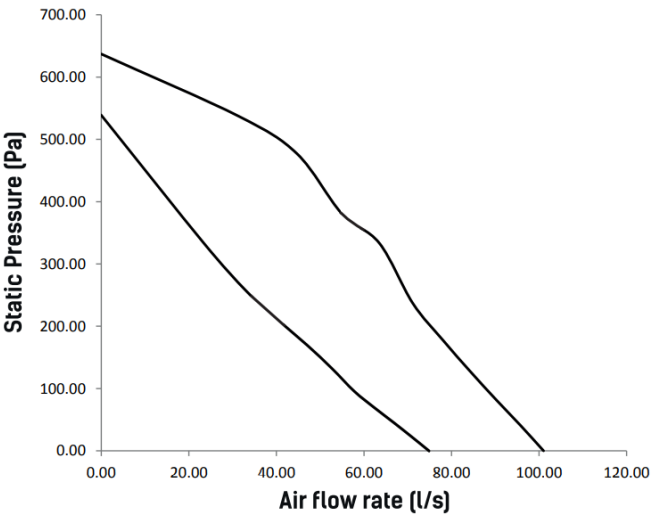


1. Humidity
2. Fault
3. Remote-control not in range
4. External Boost
5. Timed Boost
6. Trickle
7. Remote-control button
8. Remote-control in range

TECHNICAL SPECIFICATION

Extract spigot diameter	125mm or Fast Track
Exhaust spigot diameter	125mm
MEV160 Maximum air flow rate	75l/s
MEV300 Maximum air flow rate	103l/s
MEV160 Maximum power consumption	43.5W
MEV300 Maximum power consumption	69.5W
Electrical supply	230V Single Phase 50Hz
Ingress protection rating	IPX2
Boxed weight	6kg
Unboxed weight	5kg

AIR FLOW PERFORMANCE



## POST-INSTALLATION CHECKLIST

- Installation instructions have been understood.
- Ductwork travelling through unheated areas has been insulated.
- Minimal amounts of flexible duct have been used in the installation.
- All ducts, valves and vents are connected, mechanically fixed and sealed.
- The unit is securely fixed with adequate space left for maintenance.
- Air flow rates have been commissioned with a calibrated anemometer or other suitable piece of equipment to meet Approved Document F of the Building Regulations for England & Wales.
- Commissioning air flow rate data has been recorded.
- The occupants of the property are familiar with the operation and maintenance requirements of the system.

## SPARES AND ACCESSORIES

Item Description	Order Code
125mm white extract valve	1DIFEXTRACT125WH
150mm white extract valve	1DIFEXTRACT150WH
Spare wireless remote control	SWH-W-MEV
125mm rigid duct connector x1	PACKRIGID125
Fast Track Plus Adaptors x3	PACKFASTTRACK-PLUS
Fast Track Plus Spigot Connection Kit x1	PACKFASTTRACK-PLUS-ANC

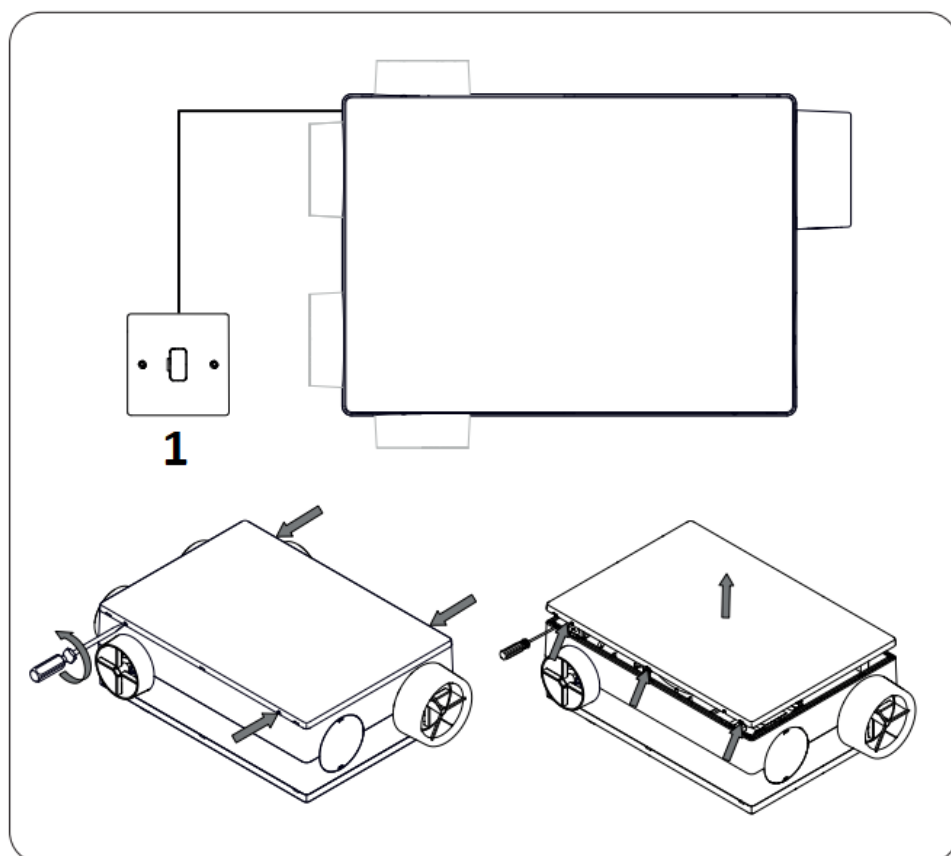
## MAINTENANCE

There is no requirement for maintenance other than cleaning during the two year warranty period.

Before cleaning, Isolate the unit from the mains power supply. Undo all four screws around the front cover and then use a flat head screwdriver to lift the three clips along the edge of the unit. Now gently pull the cover away from the unit.

Remove any dust and debris from the inside of the unit.

Dust and debris should also be removed periodically from any extract valve filters that are fitted to ensure they do not become blocked.



## 1. ISOLATE MAINS SUPPLY

### WARRANTY

We appreciate you choosing this quality EnviroVent product, which is designed and manufactured in Harrogate, North Yorkshire. We are confident that you will be delighted with the performance of the system and the resulting improvement in air quality in your home after it has been installed.

This unit is covered by a 2-year warranty. You should not dismantle or remove any parts of the product other than those instructed in this guide. Tampering with the unit will void the warranty. The valves should be checked periodically to ensure there is air flowing through the system.

### ENVIROVENT SUPPLY & INSTALLATION

If your product has been supplied and installed by EnviroVent Ltd it is covered with a two-year parts and labour warranty. If you detect a fault, please contact us on **01423 810 810**. You will be given guidance over the phone, or an arrangement may be made for a member of our team to visit (callout charges may apply).

### SUPPLY ONLY

If your product has been supplied by EnviroVent and installed by a third party it is covered by a twoyear parts only warranty. If you detect a fault and the product has been installed in accordance to the fitting/wiring instructions, relevant guidance documents and by a competent and qualified person (proof may be required), please return the product to the place of purchase for a replacement.

### WARRANTY CONDITIONS & EXCLUSIONS

Please note that a receipt will be required as proof of purchase. Products bought from an unapproved source, including but not limited to auction websites, are not covered by the warranty.



- The system must be correctly installed and operated according to the instructions contained in the user guide supplied.
- The warranty will be rendered invalid if the system has been serviced, maintained, repaired, taken apart or tampered with by any person not authorized, which in any way contradicts this installation guide

Your unit serial number \_\_\_\_\_

For warranty conditions and exclusions, visit [www.envirovent.com/warranty](http://www.envirovent.com/warranty)

MEV 160 & MEV 300

SHOULD YOU ENCOUNTER ANY PROBLEMS WITH YOUR UNIT, CALL US ON: **01423 810 810**

AFTER INSTALLING THIS UNIT, PLEASE PASS ON TO END USER  
**DO NOT THROW AWAY**

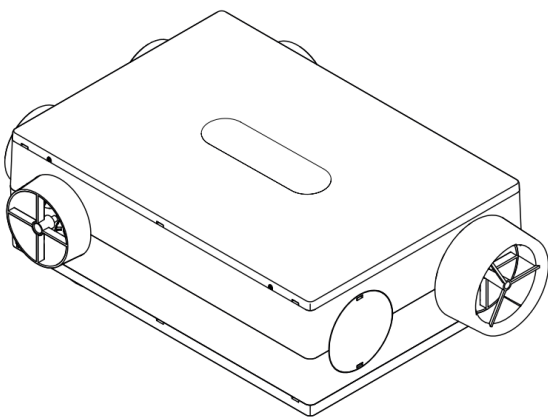
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INSTGUIDE-MEV-160/300

AFTER COMPLETING INSTALLATION, PASS THIS GUIDE ON TO THE END USER FOR FUTURE REFERENCE  
**DO NOT THROW AWAY**

**envirovent**®

Leading Manufacturer & Supplier of Innovative & Sustainable Ventilation Systems



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**Boxed unit weight:**  
6kg

**Unboxed unit weight:**  
5kg

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**E&OE | MKT ENV409 – V10 – 19.01.23**

Due to our policy of continuous innovation and improvement EnviroVent reserves the right to alter products specification and appearance without notice.

**We want to hear from you**

Your feedback is important to us as we strive to improve our products, services, and overall customer experience. Please email us to help us serve you better: [feedback@envirovent.com](mailto:feedback@envirovent.com)

**Documents / Resources**

	<p><a href="#">envirovent MEV 160 Mechanical Extract Ventilation</a> [pdf] Installation Guide MEV 160, MEV 300, Mechanical Extract Ventilation, Extract Ventilation, Mechanical Ventilation, Ventilation</p>
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**References**

- [📧 UK Manufacturer Of Ventilation Systems & Extractor Fans | EnviroVent](#)
- [📧 Product Warranty Information | EnviroVent](#)