



# **Installation, operation, and maintenance manual**

**Part No. 90001459/90001460**

**Purigo M650/M850**

**Please keep this manual with the product**

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## 1.0 General Information

Section 1 contains essential information about the operation of the unit, warnings and safety, warranties, regulation guidelines, intended use, receipt, storage and shipping of the unit.

### 1.1 Safety Information

All essential safety information must be followed! A typical example of how a safety critical warning is given will be displayed below. Typically, these are displayed in red box however no guarantee every user safety warning will be displayed in the same way. Use common sense and good judgement and never install or operate the unit if not properly qualified to do so.



**Danger: Always pay close attention to danger and warnings signs. To not do so could cause serious personal injury, death, and damage to the product and property.**

Special Regulations apply for use, connection, operation, transportation, and maintenance. Consultation is needed in case of any doubt about requirements to safely carry out work. Consult the relevant regulations and health and safety standards of your organisation or seek expert advice. When carrying out maintenance, repair, installation, and any other work, Airflow Developments recommends the following safety equipment be used:

- Protective glasses to protect against eye injuries.
- Ear protectors to protect against all kinds of noise.
- Hair net and protective clothing to guard against contact with moving parts. Do not wear rings, chains, or other jewellery.
- Protective mask protects the airways from small particles, dust, pollen, bacteria, and viruses.
- Protective gloves serve to protect the hands against rubbing, abrasions, cuts or more injuries, as well as contact with hot surfaces.
- Protective footwear serves to protect against heavy falling parts and from slipping on slippery surfaces.



**Warning: For all work on the Purigo M 650 and M 850, the applicable general safety at work and accident prevention regulations must be observed! The following must be observed before all cleaning and maintenance work or before opening the terminal compartment:**

1. All safety features like fuses, etc. must be correctly fitted and can only be removed for maintenance and repair jobs by skilled and authorized service engineers. Isolate the unit from the mains power supply and secure against unintended restart! – The rotating parts must first come to a standstill! – Once the rotating parts come to a standstill, a waiting time of 5 minutes must be observed, as dangerous voltages may be present due to internal capacitors, even after isolation from the power supply!
2. All plant-related safety regulations must be observed! If applicable, further country-specific regulations must also be observed!
3. Protection against contact must be ensured pursuant to BS EN ISO 13857:2008 when installed! Contact with rotating parts must be avoided.
4. A uniform inflow and free outlet must be ensured!

## 1.2 Warranty Claims

Any warranty, guarantee or offer provided by Airflow Developments shall not apply if the instructions are not observed. The use of accessories, add-ons or other interactions which are not recommended or offered by Airflow developments is not permitted. Any damage or issues that may occur from misuse, unauthorized tampering or modification with the unit is not liable for warranty. "Unit" shall refer to all items in the scope of this delivery. Upon successful delivery the unit is considered correct. If modification, tampering or adjustment has been done without the express instruction of Airflow Developments staff or authorized technicians, your warranty and guarantee is considered breached if issues arise from this.

## 1.3 Regulation Guidelines

If the product is installed correctly and used to its intended purpose, it conforms to all applicable regulations and directives at its date of manufacture as per its declaration of conformity document. Upon delivery it is recommended that a manager or user check the unit for breaches of relevant safety legislation that occurred in transit and then raise any issues with the transport company if issues are found.

## 1.4 Intended Use

Purigo M 650 and M 850 are designed to be used in a typical residential/commercial environment. It is for indoor use only and works with 230V AC supply from a normal utility socket. It can be used for filtering indoor air by means of recirculating it and removing the small particles, dust, pollen, bacteria, and viruses with the help of air filters. Any use other than the intended use is prohibited!

**Do not use the unit at a relatively humidity higher than 70%.**

**Do not use the unit at temperatures below 5°C and above 40°C.**

**Do not operate the unit with different utility/mains power then listed on this manual.**

## 1.5 Receipt

The delivery contains the air purifier unit. The scope of delivery also includes the items below as the assembly kit:

- Power supply cable, 1 piece
- The materials above are attached to the service panel of the unit with adhesive tape.

Please check delivery immediately on receipt for accuracy and damage. If damaged, please notify the carrier immediately. In case of delayed notification, any possible claim may be void.

## 1.6 Storage

When storing for a prolonged time, the following steps are to be taken to avoid damaging influences: Protection by dry, air-dustproof packing (plastic bags with drying agent and moisture indicators). The storage place must be waterproof, vibration-free, and free of temperature variations (ambient temperature limit min/max 0°C/ +40°C). Damages due to improper transportation, storage or commissioning must be verified and are not liable for warranty.

## 1.7 Shipping

All manufactured devices are shipped from the factory after all tests and checks have been carried out before shipment. The shipping must be carried out by trained and experienced personnel and the necessary safety precautions should be taken to prevent the overturning and slipping of the device. When shipping the devices, it should be ensured that the weight is evenly distributed over the four corners and not unbalanced.



**Warning:** When transporting the unit, carefully observe its behavior and stay clear of any possible hazardous areas. It must be ensured that the means of transport/lifting is suitable to accommodate the required weight and size capacity. Never stand beneath suspended loads. Never try to lift weight you cannot reasonably carry. Watch hands and fingers when lifting or dropping the box to its side. Be careful in the transportation of the unit that it is not dented in transit.

Packaging information is displayed below:

Table 1: Packaging Information

Model	Packed Quantity	Box Dimensions (LxWxH) (mm)	Weight(Kg)
90001459	1	410x355x1045	42
90001460	1	560x515x1160	48

## 2.0 Disposal

In section 2.0 information about the safe and responsible disposal of the unit is included. Dispose of all components and filters in an environmentally friendly manner in accordance with the local codes, practices, and guidelines. An authorized specialist waste processing company must dispose of the unit or the individual components. The appointed contractor must ensure that the components are separated according to material type.

### 2.1 Filter Disposal

The filters of the unit can be considered toxic and harmful to the environment once they are due for replacement. Please dispose of these in the most appropriate manner to the local authority.

### 2.2 Electrical Connection

The product does not contain batteries, in the event of the failure of the unit try a different plug and dispose of the one that came with the unit in a manner that is acceptable to the local authority. It can be disposed as you would any other retail plug.

### 2.3 Recycling

Metal components of the product may be recycled, always check with your local disposal outlet which parts can or can't be recycled in your area.

### 3.0 Technical Information

Section 3 contains the technical parameters of the unit. Table 3 and 4 detail the values of each setting when adjusted at the potentiometer.

Table 2: General Specification

Specification	M850	M650
Airflow Volume(m <sup>3</sup> /h)	160-850	100-650
Control	Stepless	Stepless
Noise Level(dBa)	27-58	28-61
Product Dimensions(mm)(HxWxD)	1138x515x460	1024x363x307
Product Weight(Kg)	40	35
Packaged Dimensions(mm)(LxWxD)	560x515x1160	410x355x1045
Packaged Weight(Kg)	48	42
Max power consumption(W)	170	170
Max power consumption(A)	1.7	1.7
Voltage(V)	230/50/60	230/50/60
Filters(HEPA)	H14	H14
Filters (EPM)	ePM10(70%)	ePM10(70%)

Table 3: Technical Specification

Specification	M850	M650
Airflow Volume min(m <sup>3</sup> /h)	160	100
Airflow Volume max(m <sup>3</sup> /h)	850	650
Max covering area(m <sup>2</sup> )	71	54
Sound Power(Min.)(dBa)	34	35
Sound Power(Max.)(dBa)	66	69
Acoustic Pressure (min.)(dBa) 1m	26	27
Acoustic Pressure at Max (dBa) 1m	58	61
Power Max(W)	168	166
Voltage(V)	230	230
Amps(A)	1.7	1.7
Frequency(Hz)	50	50
Height	1139	1024
Width	515	363
Depth	461	307
Weight(Kg)	40	35
Protection IP Rating	20	20
Body Construction	Mobile	Mobile
Filter 1	ePM <sub>10</sub> 70%	ePM <sub>10</sub> 70%
Filter 2	HEPA14	HEPA14
Control	Stepless	Stepless
Colour of body	White	White

Table 4: M850 Setting levels

<b>M850</b>			
Adjustment levels	Air Volumes(m <sup>3</sup> /h)	Noise level at 1m(dBa)	Power(W)
20	0-140	26	4
25	140-200	30	6
30	200-250	32	9
35	250-315	36	13
40	315-365	39	18
45	365-420	42	24
50	420-490	45	36
55	490-530	47	45
60	530-590	50	60
65	590-650	52	78
70	650-700	54	97
75	700-768	56	125
80	768-815	57	149
85	815-830	57	160
90	830-844	58	168
95	844-844	58	168
100	844-844	58	168

Table 5: M650 Setting levels

<b>M650</b>			
Adjustment levels	Air Volumes(m <sup>3</sup> /h)	Noise level at 1m(dBa)	Power(W)
20	0-90	27	4
25	90-140	32	6
30	140-180	37	8
35	180-200	39	12
40	200-270	43	17
45	270-310	46	24
50	310-350	48	32
55	350-400	51	44
60	400-460	53	59
65	460-490	55	74
70	490-535	57	93
75	535-575	58	114
80	575-625	59	143
85	625-640	60	155
90	640-651	61	166
95	651-651	61	166
100	651-651	61	166

## 4.0 Installation

Section 4 contains information about the installation of the product into its intended area of operation. It contains information about the installation location, mobility, electrical connection, and unboxing.

### 4.1 Unboxing

The product will come in a cardboard box which can be disposed of and recycled. **Ensure this manual is kept with the unit.** The unit will not come upright, and it is not recommended the product is unboxed this way in case it may fall. Move the box to the intended location of install using a suitable means. If the unit is too heavy, use 2 people or suitable machinery such as a pallet mover. If for any reason, the box is damaged and preventing transport, consult section 1.2 and 1.5 of this document. In this case, the product may be removed from the box, upright it and wheel it to the desired location using the mobile wheels at the bottom of the unit.

### 4.2 Installation Location

The Purigo M 650/850 air purifiers must be placed in a vertical position in such a way that the air inlets and air outlets of the apparatus are not blocked by obstacles and a clear air distribution path is guaranteed. The unit is intended to be stood on its wheels. Do not seal the unit in place as the back will need to be accessed for maintenance. Do not put the unit in a location which will exceed its maximum temperature tolerances. Do not place the unit in areas which are to be kept clear for any reason, such as a fire exit. Allow easy access for adjustment of the potentiometer. Do not place the unit inside a cupboard, wardrobe, or cabinet. Do not rest heavy objects on the unit or use it to hold other objects in place. It is recommended to not place the unit where there is a danger of it falling from a great height. Do not place the unit in water or submerge it. Do not concrete the unit in place or install into a wall, floor or ceiling.

### 4.3 Mobility

The Purigo M series has wheels at the base of the unit which allow free movement. These wheels can be locked by pressing down on the handles on the top of the wheels. When the unit is to be moved, unlock these wheels again. Do not attempt to move the unit when the wheels are locked.

### 4.4 Electrical Connection

The electrical connection is made by plugging in the power cable to the back of the unit and inserting the plug into a mains power socket. The black power switch on the back of the unit will turn power on and off. Do not run the electrical connection through water using a cable extender or any other cable. Ensure the plug and plug socket is safe and electrically secure **BEFORE** operation or plugging in the unit. Never attempt to force the wrong plug type into the power connection. Always check the plug is compatible with the product before attempting to install.



## 5.0 Operation

Section 5 contains information about the operation of the unit and includes the correct operation of the potentiometer, speed control and an explanation of the labels that are present on the unit.



**Warning:** Make sure to use protective gloves and a protective mask (min. FFP2) BEFORE performing service and/or maintenance work.



**Danger:** Danger to life due to electric shock. An electric shock can result in death or serious injury. The unit must be fully isolated from the mains power supply before all maintenance work and before opening the terminal compartment!

- Do not operate the unit without a proper electrical grounding/earthing.
- Make sure the unit is connected to a power supply with a 30 mA individual RCD.
- Always disconnect the unit power supply before performing any service or maintenance work.

### 5.1 Operating the Power

The fan is directly controlled by the speed controller (potentiometer). Push the rotary control inwards to power the unit. The blue LED indicates the unit is running. The unit cannot be switched on or off by pressing the blue button, it is for indication purposes only, the potentiometer must be pressed in to power on the unit. Switch the switch down on the back of the unit to engage the plug power supply.

### 5.2 Speed Control

Turn the knob of the potentiometer clockwise to increase the speed and the airflow. Turn the potentiometer anti-clockwise to decrease it. The adjustment levels with power draw and airflow rates can be seen in section 3.0, Table 3 and 4 of this document. Comfort is intended to be the everyday operating speeds, and boost for short periods of increased purification.



Figure 1: Speed control potentiometer

## 6.0 Maintenance and Service

Section 6 contains all the necessary service and maintenance information for the unit. Included in this section is the relevant safety information, a weekly, monthly, and yearly maintenance plan, and information about component maintenance and filter maintenance.

### 6.1 Important safety information

Please read and understand this section fully before continuing with maintenance work.



**Warning:** Make sure to use protective gloves and a protective mask (min. FFP2) BEFORE performing service and/or maintenance work to prevent the inhalation of built up harmful particles inside the filter.



**Danger:** Danger to life due to electric shock. An electric shock can result in death or serious injury. The unit must be fully isolated from the mains power supply before all maintenance work and before opening the terminal compartment!

- Do not operate the unit without a proper electrical grounding/earthing.
- Make sure the unit is connected to a power supply with a 30 mA individual RCD.
- Always disconnect the unit power supply before performing any service or maintenance work.

Airflow Developments recommends the following safety equipment be used before carrying out work.

- Protective glasses to protect against eye injuries.
- Ear protectors to protect against all kinds of noise.
- Hair net and protective clothing to guard against contact with moving parts. Do not wear rings, chains, or other jewellery.
- Protective mask protects the airways from small particles, dust, pollen, bacteria, and viruses.
- Protective gloves serve to protect the hands against rubbing, abrasions, cuts or more injuries, as well as contact with hot surfaces.
- Protective footwear serves to protect against heavy falling parts and from slipping on slippery surfaces.

## 6.2 Maintenance Schedule

The below maintenance schedule is recommended by Airflow Developments.

Maintenance Plan for all Purigo units			Recommended inspection intervals			
Component	Task	Action if unacceptable	Regularly	3 months	6 months	1 year
Outer Housing	Check for corrosion, contamination, damage or scratches etc	Clean and repair	X			
	Check for Damage	Fix the damage	X			
Air Filters	Check for unacceptable levels of dirt, odours and damage	Replace the filter		X		
	Check the filter change indicator next to adjustment knob.	Replace the filter	X			
Fan	Check for pollution, shading and corrosion/damage	Clean or replace the fan			X	
	Check for abrasion or unbalance	Change the fan				X
	Check internal fan connection cable	Repair or replace				X
Silencer	Check for dirt and damage	Clean or change			X	

## 6.3 Components

Each component should be checked for damage. Below is a list of all the components within the unit. Common symptoms include loose wires, dents, scratches, or other damages.



Figure 2: Exploded component view

## 6.4 Filters

The filters must be changed and replaced when the filter warning symbol appears on the front panel of the unit. In addition, When maintaining the unit, check for dirt and dust and any other debris, if it is excessive (significant dust or blackened by dirt) clean it out.



**Warning:** Make sure to use protective gloves and a protective mask (min. FFP2) BEFORE performing service and/or maintenance work to prevent the inhalation of built-up harmful particles inside the filter. Consult section 6.1.

Table 5 contains a list of the filters and the respective part numbers for ordering. The filters are available for purchase from [airflow.com](http://airflow.com). The filters are only guaranteed if purchased from Airflow developments. No responsibility will be accepted for use of 3<sup>rd</sup> party filters or other filters. 3<sup>rd</sup> party filters may not perform as intended.

Device	Filter Classes	Filter QTY	Filter Dimensions	Ref No.
Purigo M650	Epm10 70%	1	305x305x100	90001513
	HEPA 14	1	305x305x292	90001514
Purigo M850	Epm10 70%	1	305x305x100	90001515
	HEPA 14	1	305x305x292	90001516

**Replacement filters must be ordered from Airflow Developments.**

To replace the filters follow the step by step guidance below:

1. Remove the back cover, unscrewing it with an allen wrench.
2. The filters should be clear and easy to remove.

**Beware of the unit tipping forward or back when performing maintenance!**



