

# Repair Manual

refresh Fresh-Air System with Avent R100

Preliminary version for initial installation

For the installer





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## 1. GENERAL SAFETY INSTRUCTIONS

### Caution:

The following safety instructions should be observed:

- Read this repair manual thoroughly before beginning with repairing the refresh fresh-air system.
- The system may be repaired only by qualified personnel.
- Observe all legal and national requirements (accident prevention regulations and approved technical standards) when repairing the refresh fresh-air system.
- No liability whatsoever is assumed for any damage caused by non-product-specific storage, insufficient repairs or improper use.
- The technical specifications of this repair manual must be observed to ensure the legal fulfilment of any warranty claims.  
The warranty may be extended to five years by agreement if only genuine Pluggit components are used.
- Technical modifications reserved.

## 2. GENERAL NOTES

### 2.1. INTENDED USE

The refresh fresh-air system is used for the controlled ventilation of flats and residential houses. For this purpose the supplied outside air is directed through the fresh-air unit and distributed among the respective living areas by means of a ring distribution system. Humid and used air is extracted and discharged to the outside by the fresh-air unit. The fresh-air unit may be switched off only for repair work.

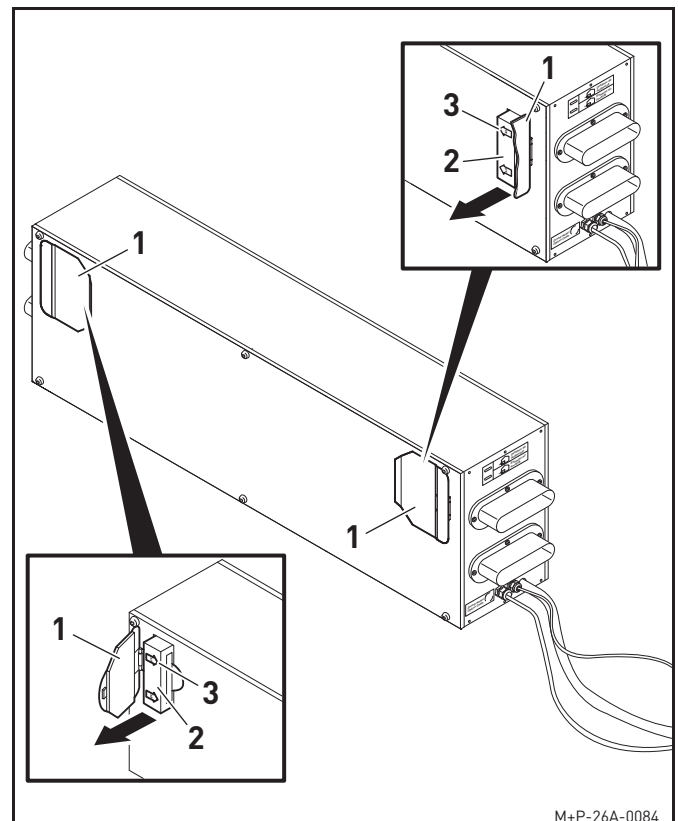
## 3. REPAIR

### 3.1. REPLACING A FILTER

The installed filters are used to filter the supplied outside air from large dirt particles and prevent the fresh-air unit from becoming dirty.

It cannot be ensured that the hygienic requirements are met if the fresh-air unit is operated without a filter.

- Check the filter approx. every 6 months and replace it, depending on the level of dirt, however at least once a year.
- The filter must also be replaced if the filter alarm is displayed (see page 3).
- Install a filter of at least G4 filter quality.
- Alternatively, a filter of F7 filter quality can be installed, depending on the level of pollution of the ambient air.

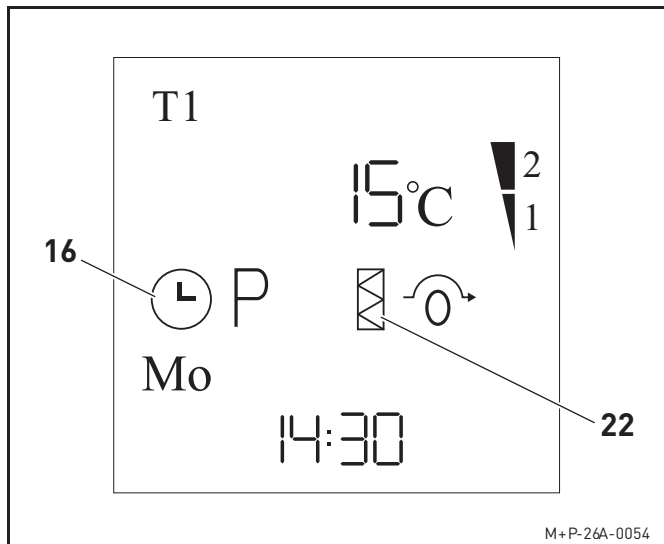


1. Open the flaps (1).
2. Pull out the old filters (2) and clean them or insert new filters in the direction of the arrow (3) towards the centre of the housing.
3. If the filters are only cleaned, they must not be swapped before they are installed.  
Mark the filter (2) and insert it on the same side in the fresh-air unit.

4. Close the flaps (1).
5. Reset the filter alarm.




### 3.1.1. Resetting the filter alarm

By default, the filter alarm flashes after 12 months.  
The filter must be replaced and the filter alarm reset.



**16** Time

**22** Filter alarm

1. Press any key to activate the remote control.  
The indicator (22) flashes.
2. Press the key  .  
The indicator (22) lights up and the indicator (16) flashes.
3. Press the key  repeatedly until the indicator (22) flashes again.
4. Press the key  .  
The filter alarm is reset.  
The indicator (22) disappears.



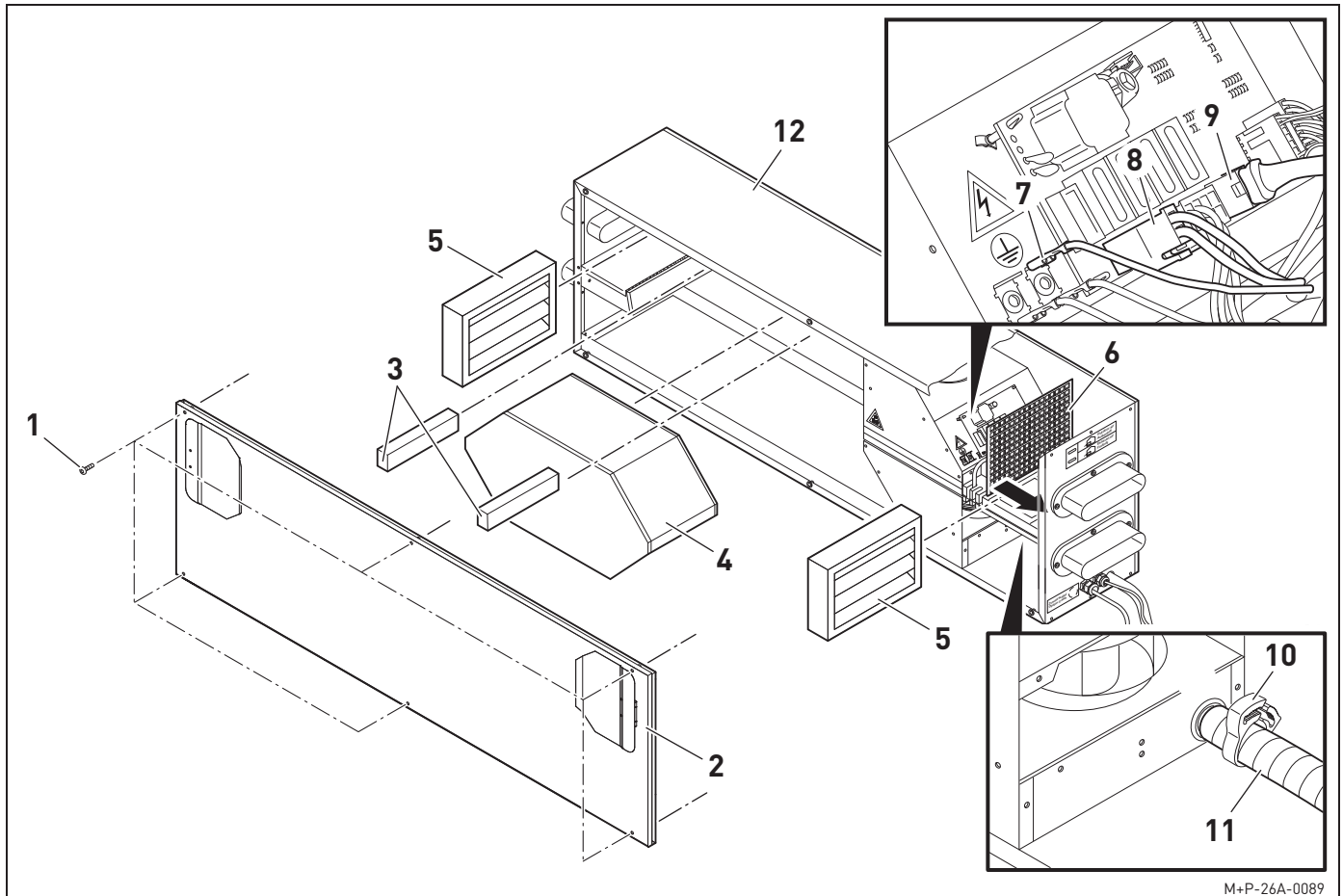
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## 3.2. REPLACING FANS

### Caution:

**Disconnect the fresh-air unit from the mains supply before replacing the fans.**



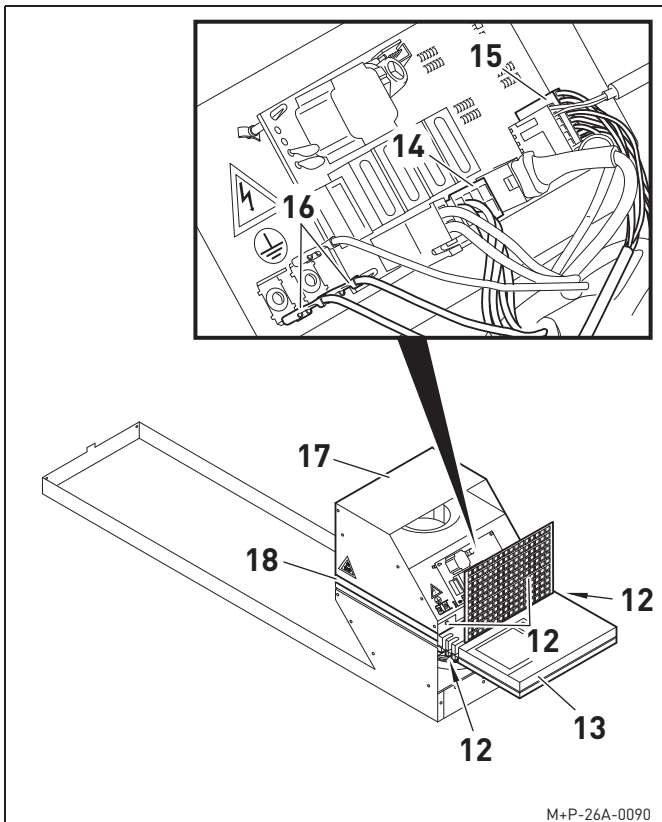
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1. Unscrew the screws (1) and remove the cover (2).
2. Pull out the foam insulation pieces (3), raise the heat exchanger (4) and remove it.
3. Remove the filter (5).
4. Flap the protective grid (6) away.
5. Pull off the plugs (7), (8) and (9).
6. Remove the hose clip (10) and undo the condensate line (11).
7. Pull the entire fresh-air unit out of the housing (12).

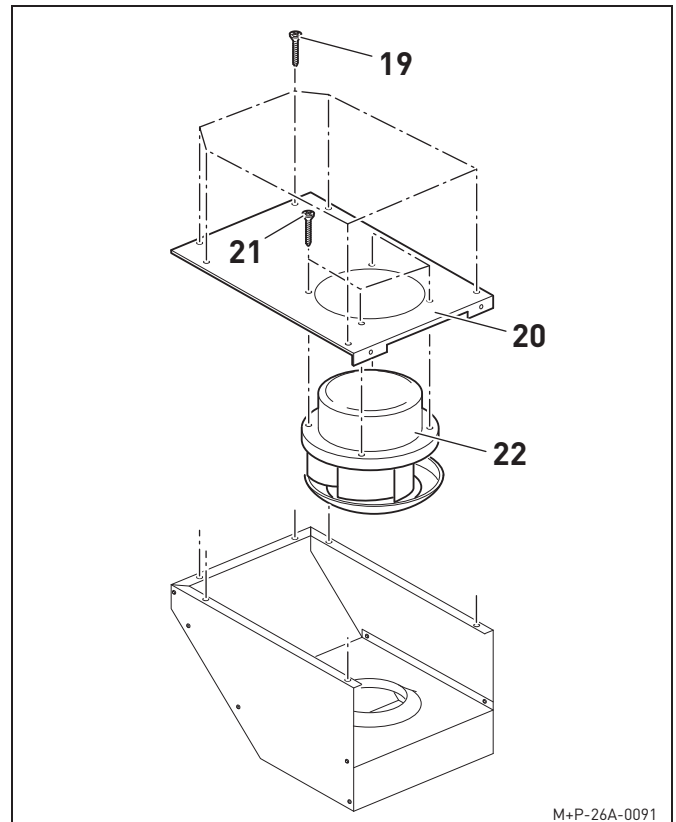


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8. Unscrew the screws (12) and remove the module (13).
9. Pull off the plugs (14), (15) and (16).
10. Take off the upper fan housing (17) and remove the insulation plate (18).
11. Pull the cable of the defective fan off the plug (14) or (15).



12. Unscrew the screws (19) and remove the cover (20).
13. Unscrew the screws (21) and replace the defective fan (22).
14. The fan is installed in the reverse order.



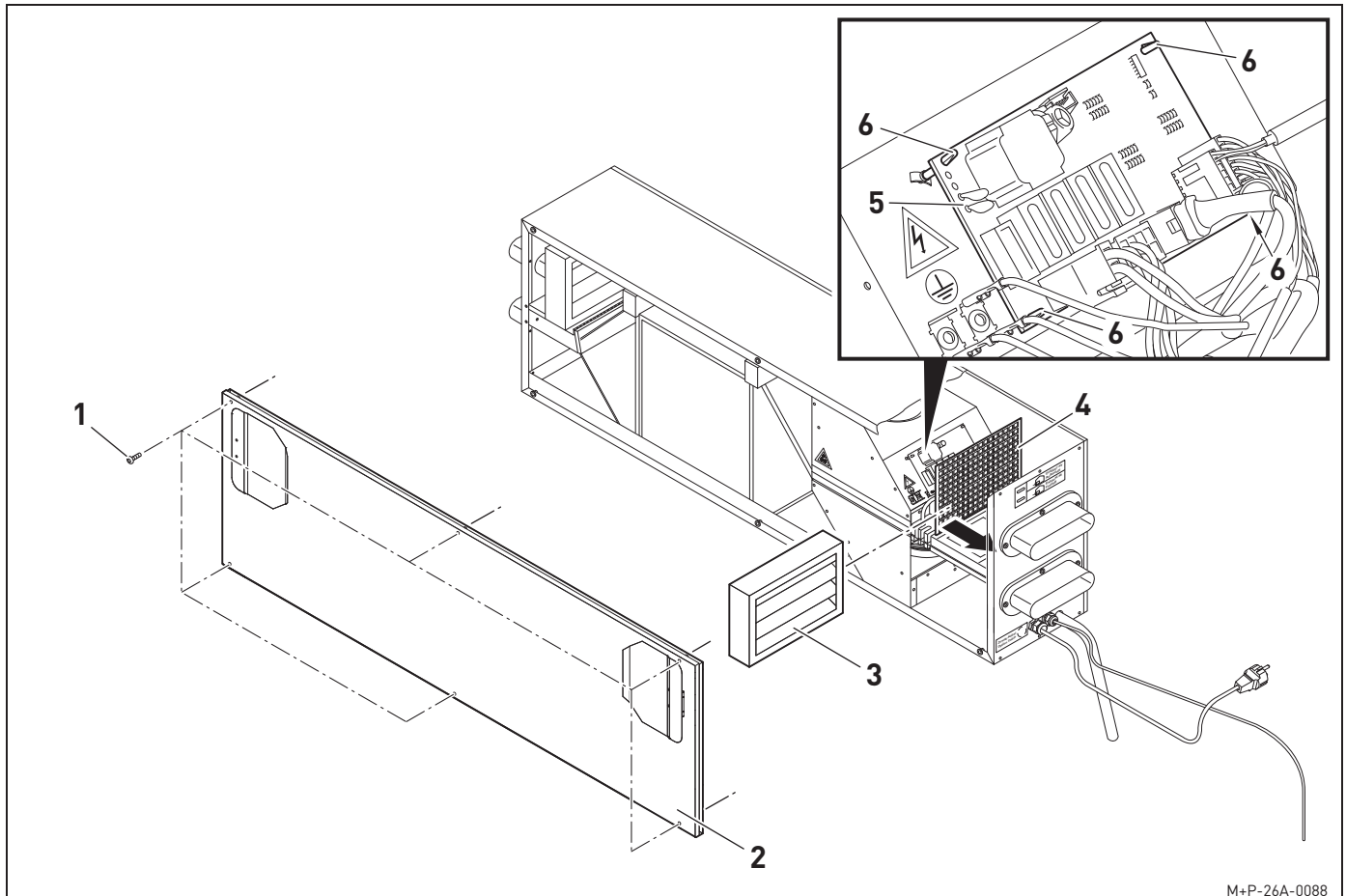
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## 3.3. REPLACING A CIRCUIT BOARD

### Caution:

**Disconnect the fresh-air unit from the mains supply before replacing the circuit board.**



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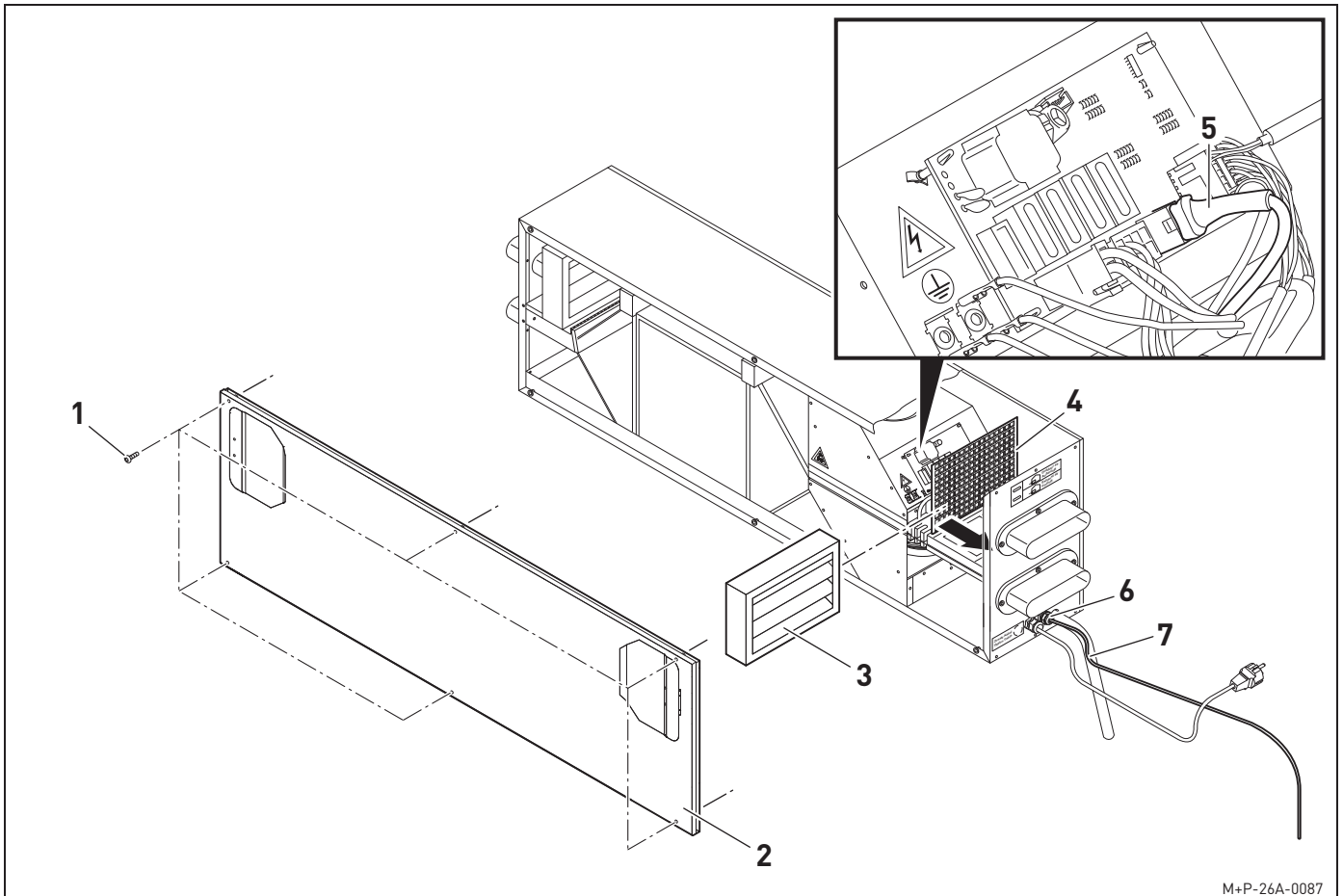
1. Unscrew the screws (1) and remove the cover (2).
2. Remove the filter (3).
3. Flap the protective grid (4) away.
4. Pull off all plugs of the circuit board (5).
5. Undo the circuit board holder (6) and replace the circuit board (5).
6. The circuit board is installed in the reverse order. See page 11 for the circuit diagram.



### 3.4. REPLACING THE REMOTE CONTROL

**Caution:**

**Disconnect the fresh-air unit from the mains supply before replacing the remote control.**



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1. Unscrew the screws (1) and remove the cover (2).
2. Remove the filter (3).
3. Flap the protective grid (4) away.
4. Pull off the plug (5) and undo the screw fitting (6).
5. Pull out the cable (7) and replace it.
6. The cable is installed in the reverse order.



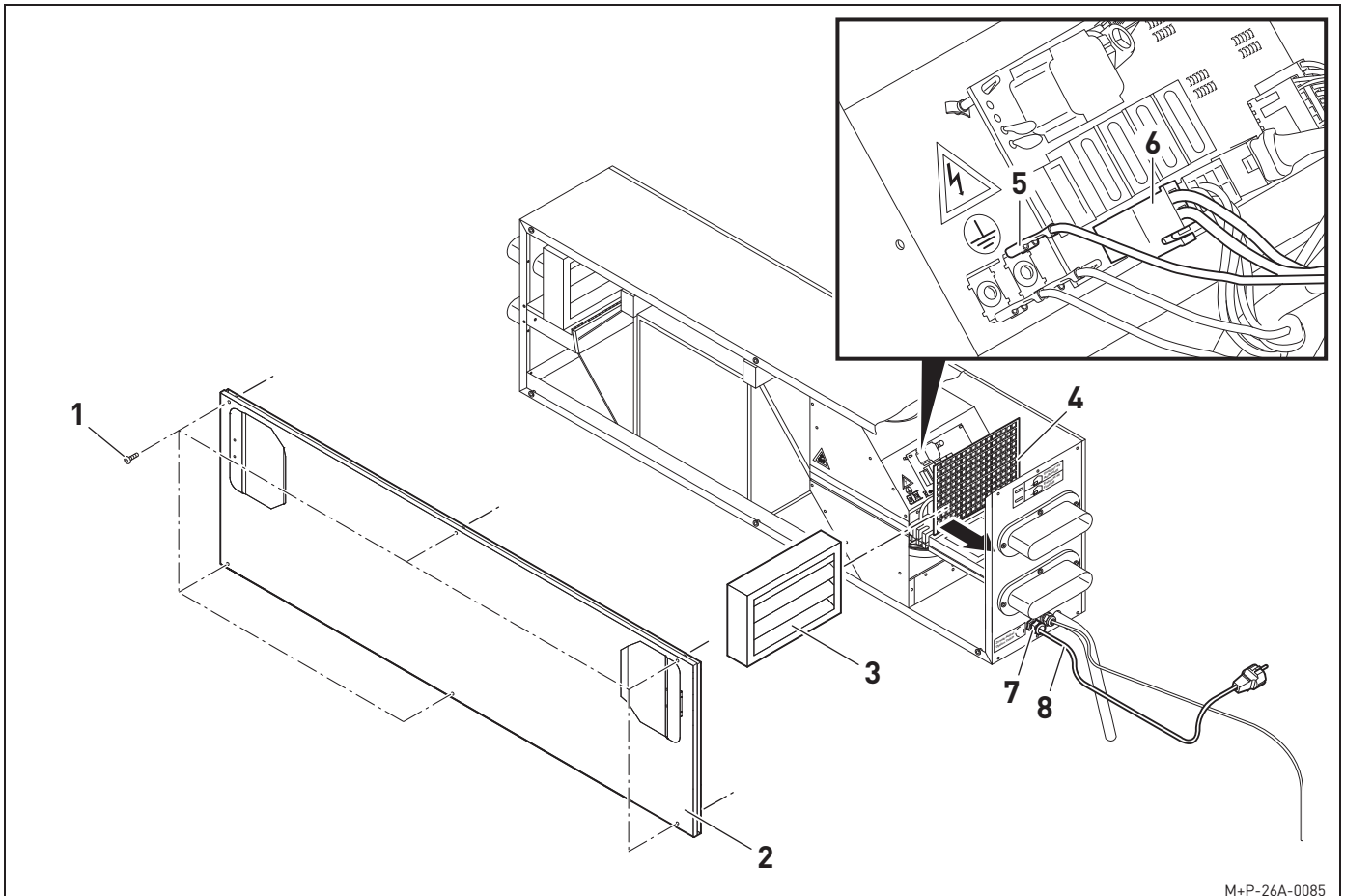
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## 3.5. REPLACING THE POWER SUPPLY CABLE

### Caution:

**Disconnect the fresh-air unit from the mains supply before replacing the power supply cable.**



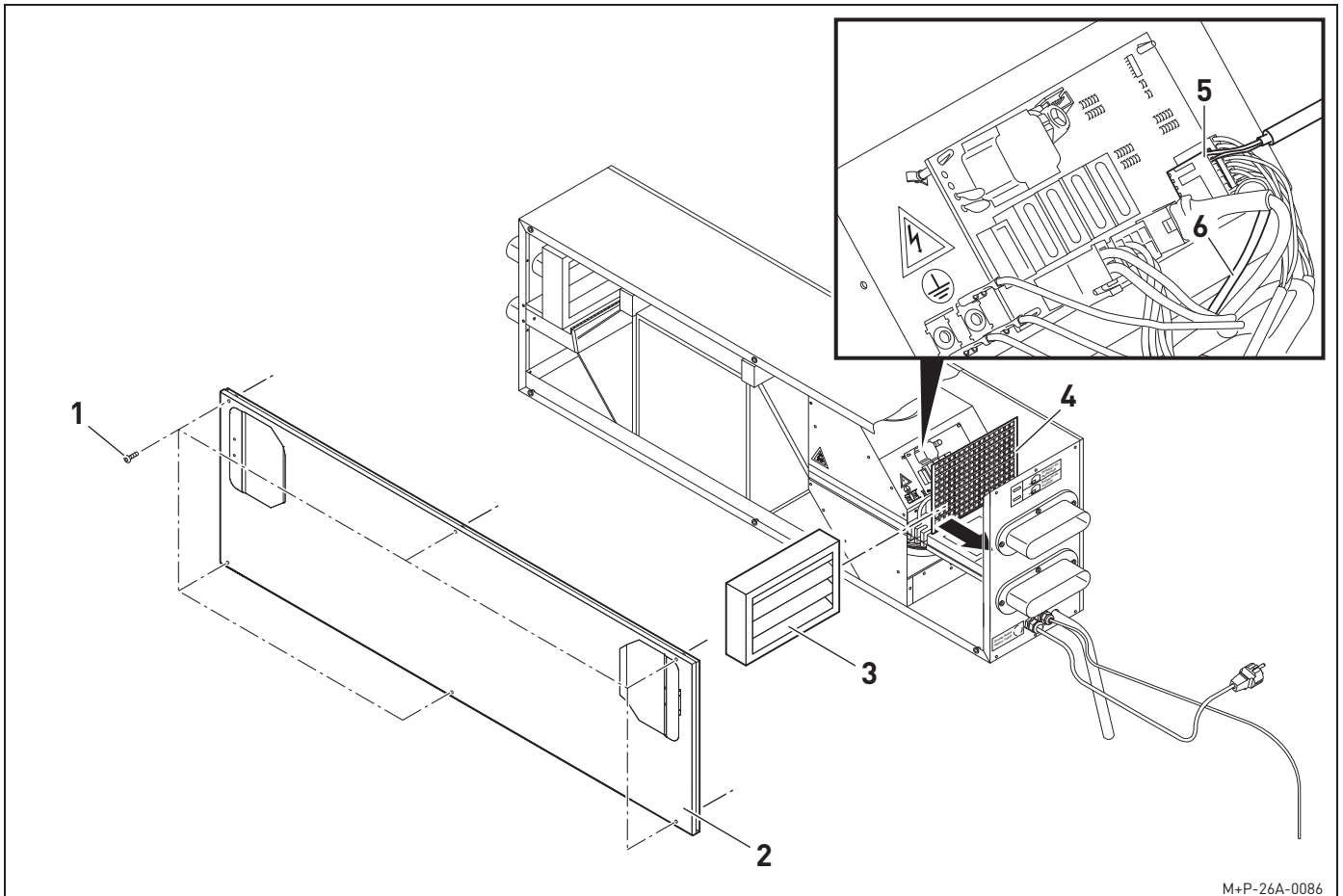
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1. Unscrew the screws (1) and remove the cover (2).
2. Remove the filter (3).
3. Flap the protective grid (4) away.
4. Pull off the plugs (5) and (6) and undo the screw fitting (7).
5. Pull out the cable (8) and replace it.
6. The cable is installed in the reverse order.

### 3.6. REPLACING TEMPERATURE SENSORS

**Caution:**

**Disconnect the fresh-air unit from the mains supply before replacing the temperature sensors.**



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1. Unscrew the screws (1) and remove the cover (2).
2. Remove the filter (3).
3. Flap the protective grid (4) away.
4. Pull out the temperature sensor (6) upwards.
5. Pull out the plug (5) and replace it.
6. The temperature sensor is installed in the reverse order.



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## 4. REMOVAL FROM SERVICE/DISPOSAL

### 4.1. SHUT-DOWN FOR REMOVAL

The system may be removed from service only by qualified personnel.

- De-energise the system.
- Disconnect the entire system from the mains supply.

### 4.2. PACKAGING

The transport and protective packaging is made largely of reusable materials.

Dispose of all packaging materials according to local regulations.

### 4.3. OLD UNIT

The fresh-air unit also contains valuable materials and substances which should not end up in the residual waste. Hand over the old unit to a local recycling plant for recycling.

## 5. TECHNICAL DATA

### 5.1. UNIT DATA

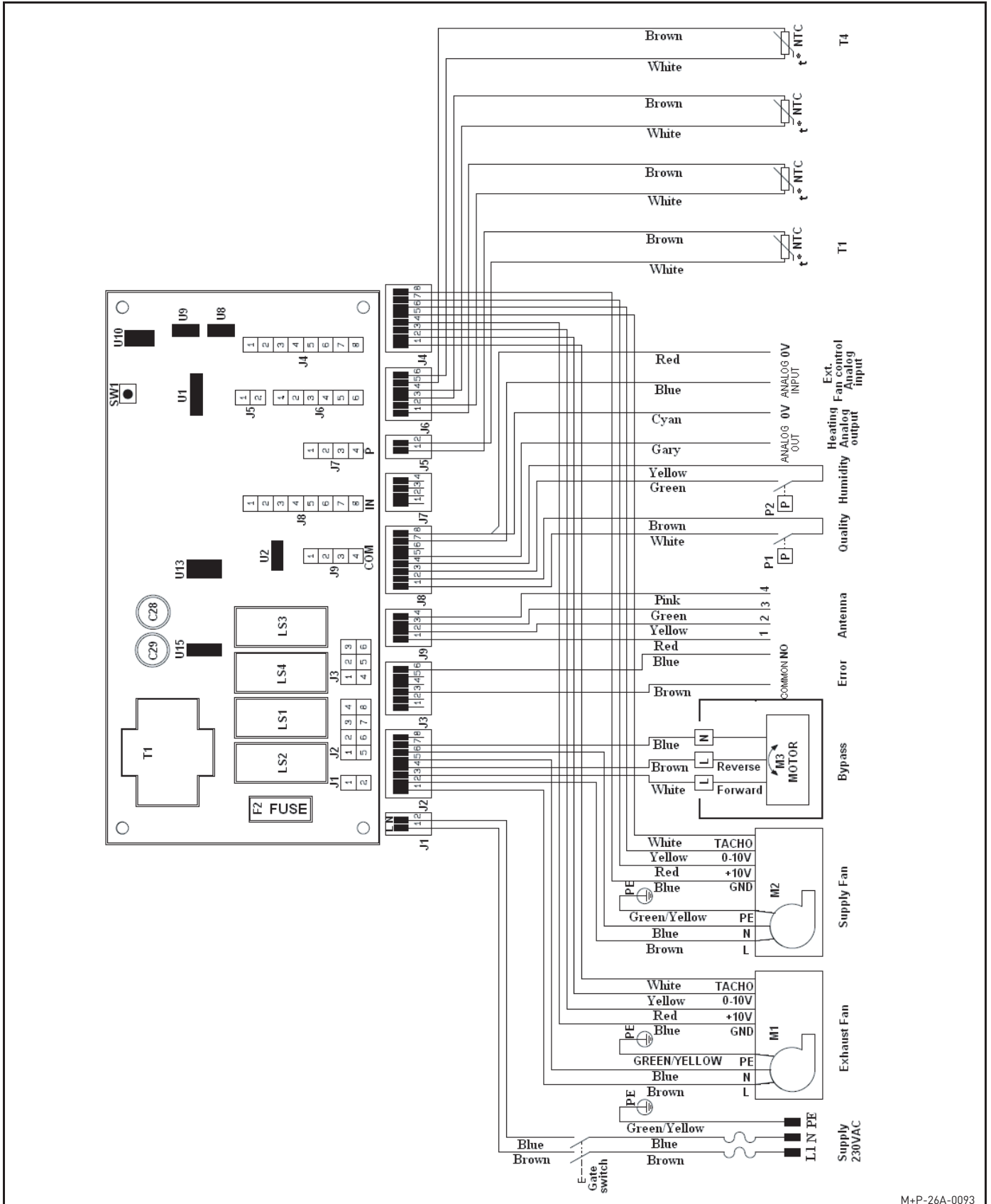
Weight	30 kg
NW of connection	PK200 (172-57 mm)
Condensate water drain (outer diameter)	1/2"
Supply voltage	230 V/50 Hz
Air flow rate	50-130 m <sup>3</sup> /h
Air capacity	100 m <sup>3</sup> /h at 100 Pa
Continuous operation	30 W (100 m <sup>3</sup> /h at 100 Pa)
Speed control	3 presettable stages
DC fans	2 x, bent backwards
Cross-counter-current heat exchanger	Aluminium
Filter	G4 filter quality
Remote control	Cable-tied
Timer	20 daily or weekly programs
Protection class	IP44
Fire-resistance, insulation material	DIN 4102 B2



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## 5.2. CIRCUIT BOARD DIAGRAM



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## The technology makes the difference.

Pluggit innovations with added value for the user and the environment.

Pluggit refresh now also allows existing flats to benefit from the market leader's years of experience and expertise in top-class ventilation of new buildings.



Coanda effect – the fresh air is directed almost silently along the ceiling without any draughts and distributed evenly in the room.



Energy efficiency – a high heat recovery level on its own makes a ventilation system look effective and energy-efficient only at first glance. Decisive for the evaluation is rather the ratio between the energy applied and the heat recovery level achieved – referred to as electrical energy-efficiency. A high level of tightness, an economic design and state-of-the-art heat exchanger technology ensure excellent values for our ventilation systems in terms of heat recovery and energy efficiency.



The CleanSafe principle ensures an almost impossible level of pollution of our distribution system due to technically smooth surfaces supplemented with a trouble-free cleaning concept, with convincing results confirmed by an independent testing institute.

**be**fresh

**How about fresh air in new buildings?  
The unique fresh-air system for new buildings.**

**How about fresh air?** You can obtain more information on the company, on the intelligent technology of Pluggit fresh air systems for new buildings, and refurbishment, on references and regional contacts at [www.pluggit.com](http://www.pluggit.com) or as dialogue at [www.lueftungsblog.de](http://www.lueftungsblog.de)

## How about fresh air?

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